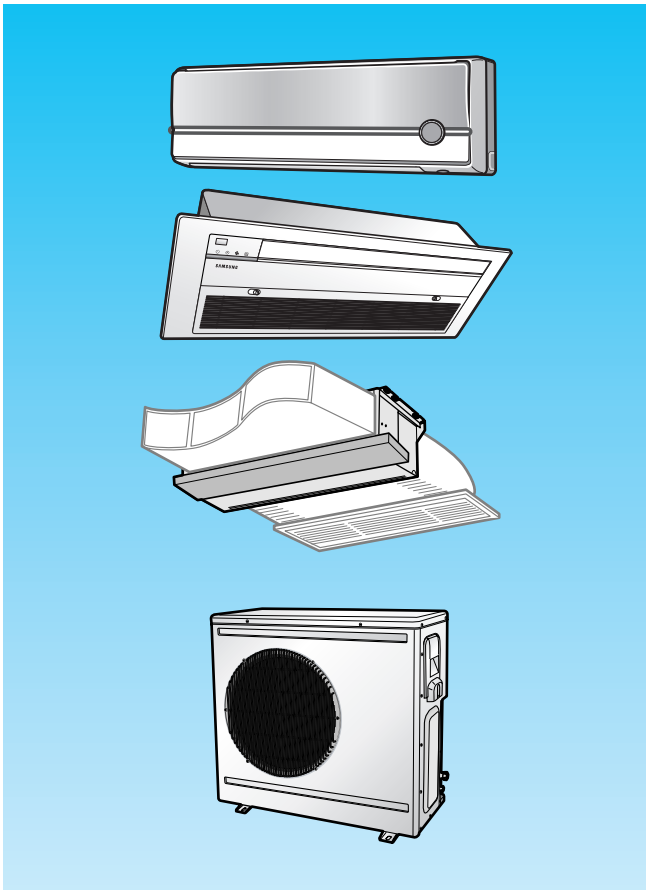
SAMSUNG

FREE JOINT MULTI AIR CONDITIONER

INDOOR UNIT	OUTDOOR UNIT
MH026FPEA	MH068FXEA4
MH035FPEA	MH080FXEA4
MH052FPEA	
MH026FKEA	
MH035FKEA	
MH052FDEA	

SERVICE Manual

AIR CONDITIONER



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1. Product Specifications

1-1 Table

Item \ Model					MH026FPEA	MH035FPEA	MH052FPEA
					INDOOR UNIT		
Type					Wall-mounted	Wall-mounted	Wall-mounted
Perfor-mance	Cooling			kW	2.60	3.50	5.20
	Heating				2.90	3.80	5.60
	Dehumidifying			ℓ/h	1.4	1.9	2.5
	Air Volume		Cooling	m^3/min	6.4	8.2	13.0
			Heating		7.4	8.6	13.5
	Noise		Cooling	dB	39	42	48
			Heating		39	42	48
	Energy Efficiency Ratio		Cooling	W/W	3.04	3.08	3.31
			Heating		2.40	2.50	2.60
	Power			V-Hz	1-220~240-50	1-220~240-50	1-220~240-50
Power	Power Consumption		Cooling	W	860	1,140	1,590
			Heating		1,310	1,630	2,470
	Operating Current		Cooling	A	3.7	5.0	6.9
			Heating		5.7	7.1	10.7
	Power Factor		Cooling	%	98.7	94.8	94.8
			Heating		99.9	98.7	96.6
Size	Outer Dimension		W x H x D	mm	795 x 258 x 179	890 x 285 x 179	1,080 x 315 x 205
				inch	31.3 x 10.2 x 7.0	35.0 x 11.2 x 7.0	42.5 x 12.4 x 8.1
	Weight			kg	7.5	8.5	13
	Refrigerant Pipe		Liquid	mm x L(m)	ø6.35 x 7	ø6.35 x 7	ø6.35 x 7
			GAS	mm x L(m)	ø9.52 x 7	ø9.52 x 7	ø12.7 x 7
	Drain Hose			D x L(mm)	ø18 x 2,000	ø18 x 2,000	ø18 x 2,000
	Blower	Type			Cross-fan	Cross-fan	Cross-fan
		Motor	Type		steel	steel	steel
			Rated Output	W	11	15	19
Heat Exchanger					2ROW 10STEP	2ROW 12STEP	2ROW 16STEP
Refrigerant Control Unit					EEV	EEV	EEV

Table(cont.)

Item \ Model				MH026FKEA	MH035FKEA	MH052FDEA
				INDOOR UNIT		
Capacity	Cooling		kW	2.6	3.5	5.2
	Heating			2.9	3.8	5.6
Power Supply				AC 220~240V, 50Hz	AC 220~240V, 50Hz	AC 220~240V, 50Hz
Power Input	Cooling / Heating		W	860 / 1,310	1,140 / 1,630	1,590 / 2,470
Running Current	Cooling / Heating		A	3.7 / 5.7	5.0 / 7.1	6.9
Indoor Unit	Fan Speed (at 0mmAq)	Hi	r.p.m.	1,070	1,210	730
		Med	r.p.m.	1,000	1,140	680
		Low	r.p.m.	930	1,070	630
	Air Circulation	Hi	m^3/min	6.84	8.61	18
		Med	m^3/min	6.32	8.13	17
		Low	m^3/min	5.83	7.70	16
	Noise Level (Sound Pressure)	Hi	dB(A)	40	42	45
	Heat Exchanger	Type		ø7.0 SLIT	ø7.0 SLIT	ø7.0 SLIT
		Row x Stages x Fin Pitch		2 x 14 x 1.5	2 x 14 x 1.5	2 x 12 x 1.5
	Fan	Type		Cross flow	Cross flow	Sirocco
		Motor Output	W	28	28	97
	Dimensions	H	mm	180	180	260
		W	mm	970	970	1,340
		D	mm	390	390	600
	Weight	kg	Net / Gross	15 / 18	15 / 18	41 / 47

Table(cont.)

Item \ Model				MH068FXEA4	MH080FXEA4
				OUTDOOR UNIT	
Type				Free Joint Multi	
Perfor-mance	Capacity	Cooling	kW	2.6 ~ 9.3	2.6 ~ 8.7
		Heating	BTU/h	2.9 ~ 10.9	2.9 ~ 10.6
	Air Volume		m^3/min	48	48
	Noise	Cooling	dB	58	58
		Heating		59	59
Power	Power		ø-V-Hz	1-220-240V~, 50Hz	
	Power Consumption	Cooling	W	890 ~ 2,820	885 ~ 2,486
		Heating		822 ~ 2,868	822 ~ 2,789
	Operating Current	Cooling	A	3.9 ~ 12.3	3.8 ~ 10.8
		Heating		3.6 ~ 12.5	3.6 ~ 12.1
	Fuse Capacity		A		
Size	Dimension	W x H x D	mm	880 x 796 x 330	880 x 796 x 330
	Weight		kg		
Com-pressor	Type			Twin Rotary	Twin Rotary
	Model Name			G5T360FU1EK	G5T360FU1EK
	Motor	Type			
		Rated Output	W		
	Freezer Oil	Type			
		Capacity	cc		
	Protection Device				
Fan Motor & Blower	Blower	Type		Propeller	Propeller
		Size	OD(mm) x L(m)	ø460	ø460
	Motor	Rated Output	W		
		Capacitor	uF x VAC		
Heat Exchanger				2ROW 36STEP	2ROW 36STEP
Refrigerant Control Unit				EEV	EEV
Refrigerant to Charge(R410A)			gr	2,900	2,900

Remark : Test Condition

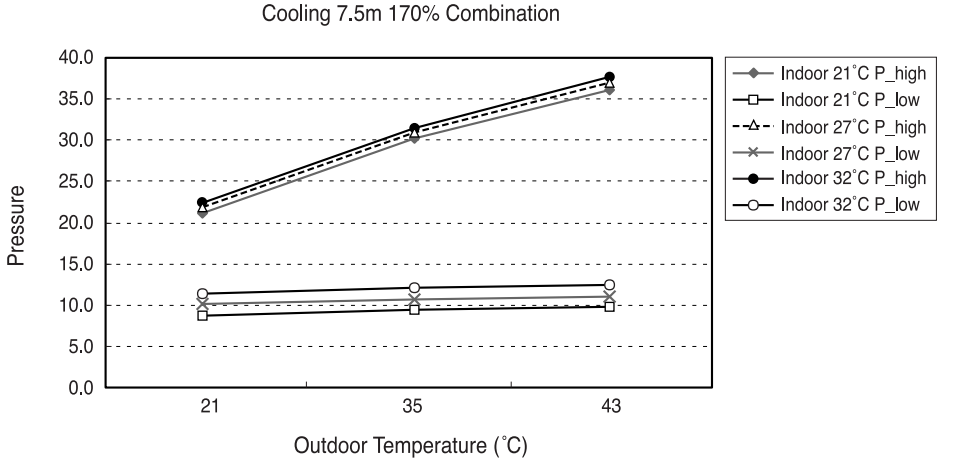
	Indoor Room	Outdoor Room
Cooling Test	DB27˚C / WB19˚C	DB35˚C / WB24˚C
Maximum Operation	DB32˚C / WB23˚C	DB43˚C / WB26˚C

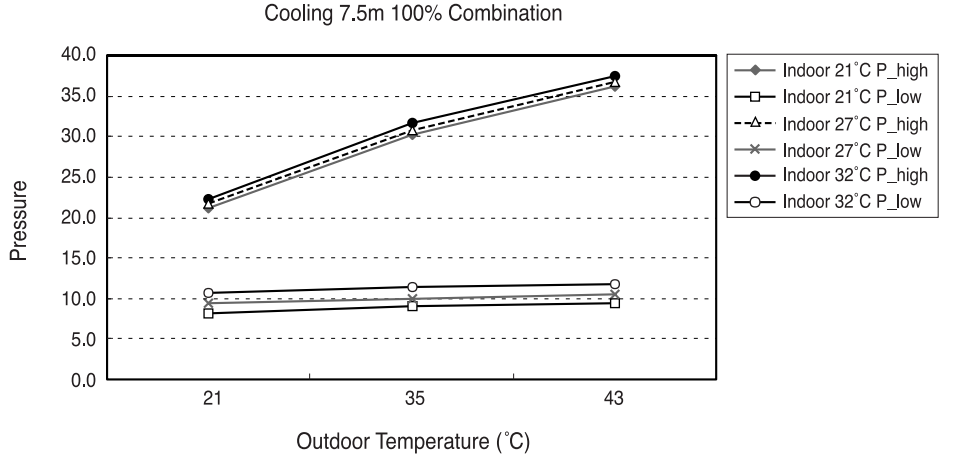
1-2 Technical Document (Pressure Graph)

1-2-1 MH080FXEA4/MH068FXEA4

■ Cooling(7.5m~Piping)

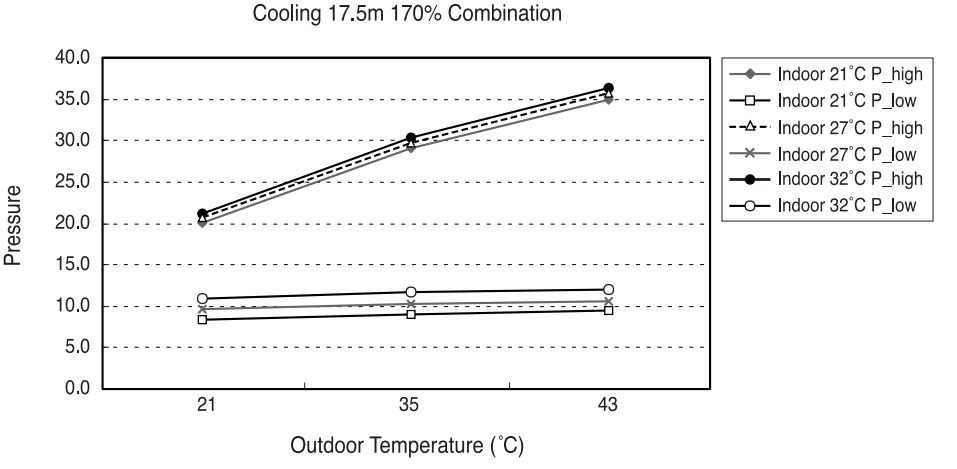
		170%(ex.026+026+035+052)				100%(ex.026+026+052)			
Outdoor	Indoor	P_high	P_low	T_dis	T_suc	P_high	P_low	T_dis	T_suc
21	21	21.2	8.7	58.4	10.9	21.2	8.2	58.7	8.2
	27	21.9	10.1	57.5	13.9	21.7	9.4	57.1	11.4
	32	22.4	11.3	56.0	16.4	22.2	10.6	55.8	14.5
35	21	30.3	9.4	78.5	12.8	30.2	9.0	78.5	10.2
	27	30.9	10.6	78.7	16.8	30.7	10.0	78.0	14.2
	32	31.6	12.0	76.3	19.4	31.7	11.4	76.7	17.2
43	21	36.1	9.8	89.8	12.8	36.2	9.4	91.5	11.4
	27	37.0	11.1	90.5	17.7	36.8	10.6	89.1	14.2
	32	37.6	12.5	88.2	20.6	37.4	11.8	86.8	16.7

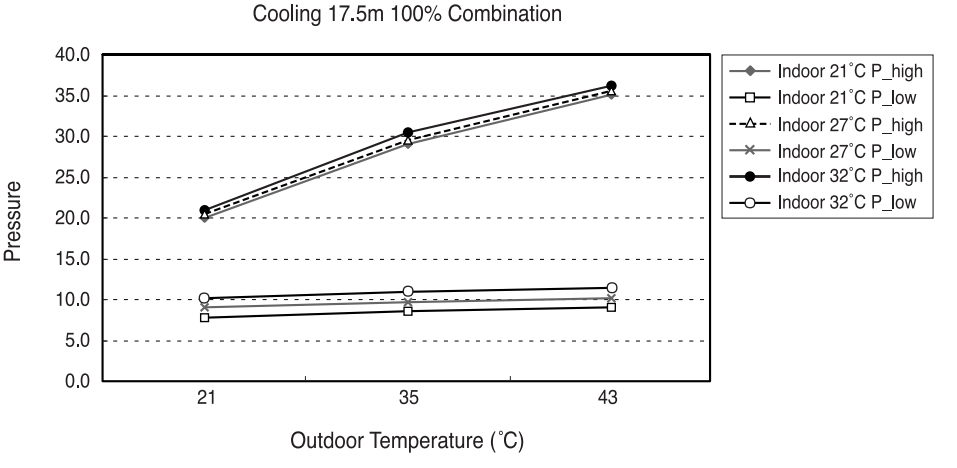




■ Cooling(17.5m–Piping)

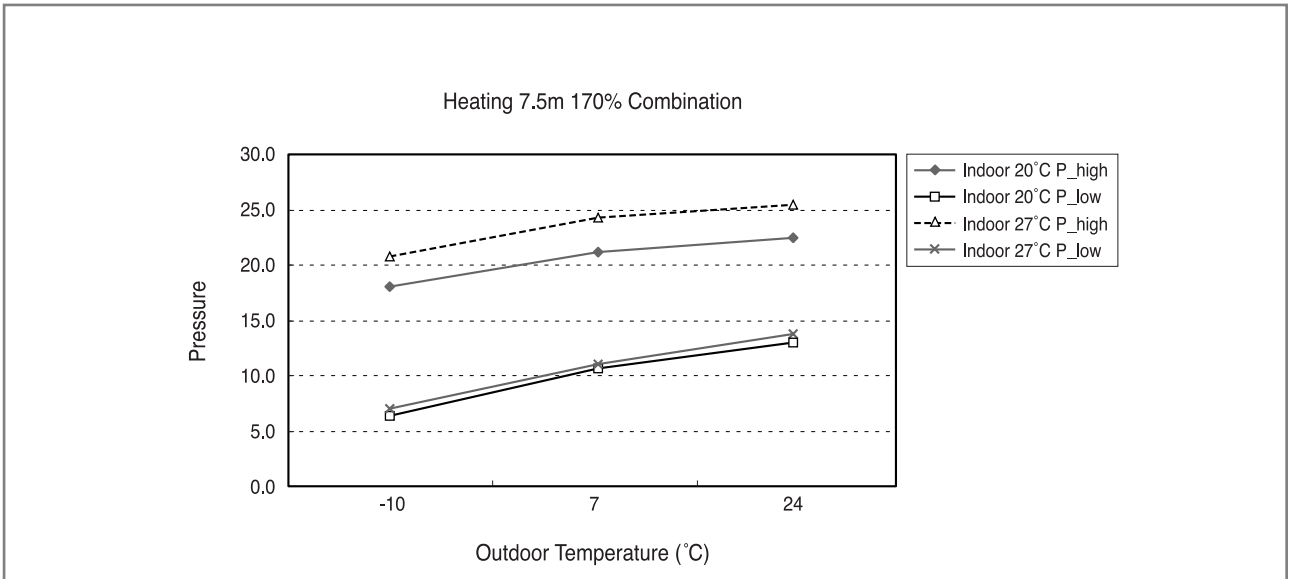
		170%(ex.026+026+035+052)		100%(ex.026+026+052)	
Outdoor	**Indoor**	**P_high**	**P_low**	**P_high**	**P_low**
21 / 15	21 / 15	20.0	8.3	20.0	7.8
	27 / 19	20.7	9.7	20.5	9.0
	32 / 23	21.2	10.9	21.0	10.2
35 / 24	21 / 15	29.1	9.0	29.0	8.6
	27 / 19	29.7	10.2	29.5	9.6
	32 / 23	30.4	11.6	30.5	11.0
43 / 26	21 / 15	34.9	9.4	35.0	9.0
	27 / 19	35.8	10.7	35.6	10.2
	32 / 23	36.4	12.1	36.2	11.4

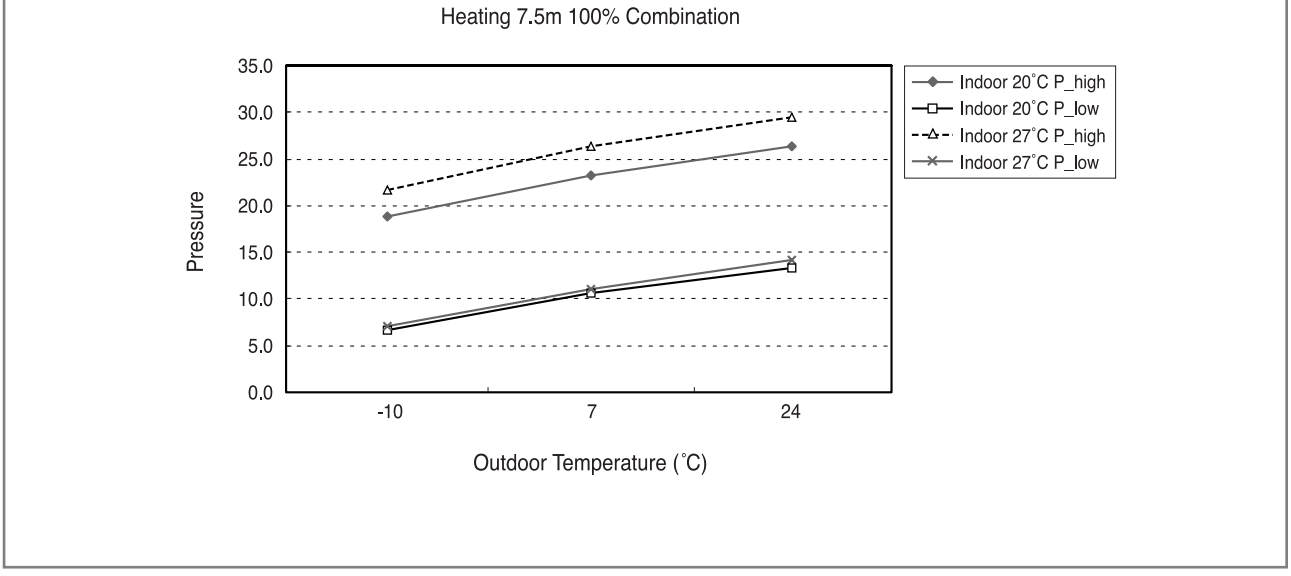




■ Heating(7.5m–Piping)

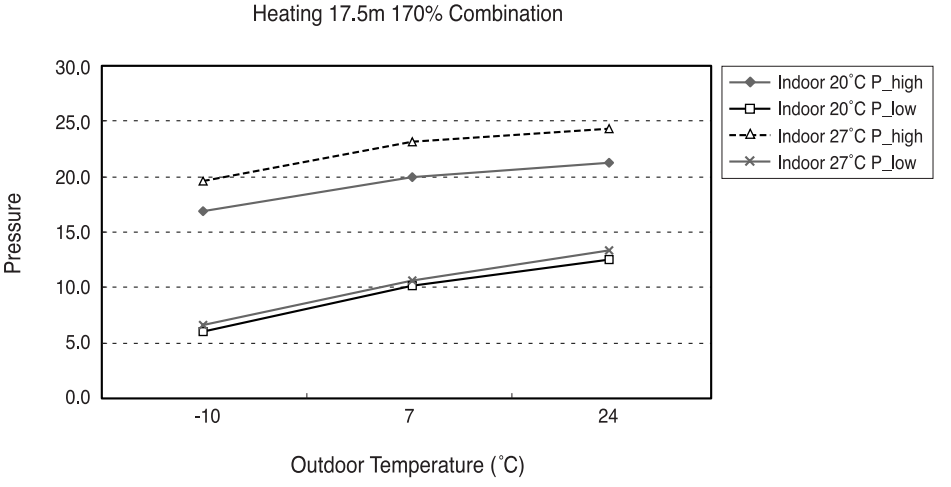
		170%(ex.026+026+035+052)				100%(ex.026+026+052)			
Outdoor	Indoor	P_high	P_low	T_dis	T_suc	P_high	P_low	T_dis	T_suc
-10	20	18.0	6.4	60.1	-18.9	18.8	6.7	59.8	-17.4
	27	20.8	7.0	66.3	-17.1	21.7	7.1	67.0	-15.7
7	20	21.2	10.6	57.9	-1.8	23.2	10.6	64.9	-0.2
	27	24.4	11.0	63.0	-0.9	26.3	11.0	69.1	0.5
24	20	22.5	12.9	60.8	16.4	26.4	13.4	71.9	17.3
	27	25.5	13.8	64.3	16.8	29.5	14.2	75.9	17.7

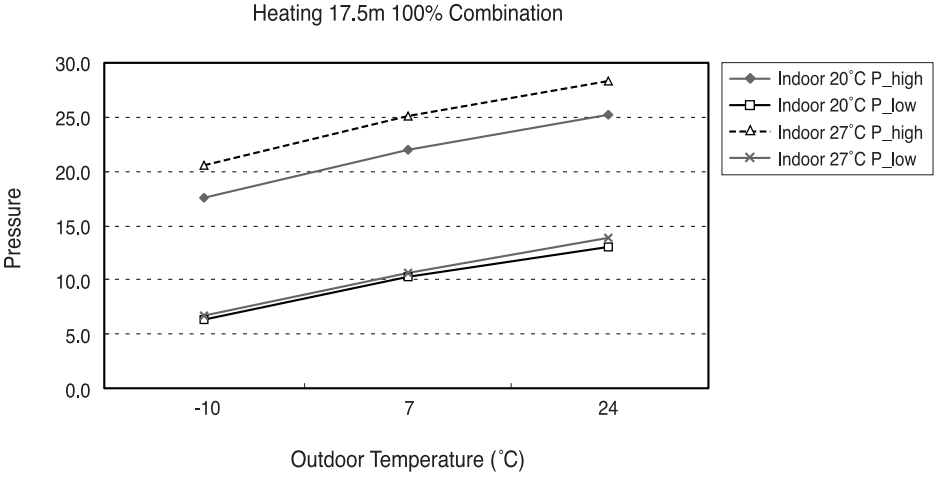




■ Heating(17.5m–Piping)

		170%(ex.026+026+035+052)		100%(ex.026+026+052)	
Outdoor	**Indoor**	**P_high**	**P_low**	**P_high**	**P_low**
-10	20 / 15	16.8	6.0	17.6	6.3
	27 / 15	19.6	6.6	20.5	6.7
7 / 6	20 / 15	20.0	10.2	22.0	10.2
	27 / 15	23.2	10.6	25.1	10.6
24 / 18	20 / 15	21.3	12.5	25.2	13.0
	27 / 15	24.3	13.4	28.3	13.8

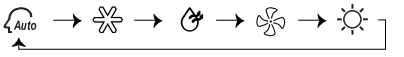




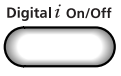
2. Operation Instruction & Installation

2-1 Operation Instruction

2-1-1 The Feature of Key in remote control

No	BUTTON	FUNCTION
1	(On/Off)	On/Off button. Press the button to stop or run the air conditioner.
2	(UP)	Temperature adjustment button(UP). The temperature is increased by the pressing the temperature button.
	(DOWN)	Temperature adjustment button(DOWN). The temperature is decreased by the pressing the temperature button.
3	Mode	Mode selection button. Each time you press this button, mode is changed in the following order.  : Auto Mode : Fan Mode : Cool Mode : Heat Mode : Dry Mode
4		Fan speed adjustment button. Each time you press this button, FAN SPEED is changed in the following order. Low → Medium → High Automatic(rotated : → → →)
5		Swing button. It adjusts the airflow to upward and downward.
6	TURBO	Turbo button. The air conditioner cools or heats the room as quickly as possible. After 30 minutes, the air conditioner is reset automatically to the previous mode.
7		Sleep button. The sleep timer can be used when you are cooling or heating your room to switch the air conditioner off automatically after a period of 6 hours.

The Feature of Key in remote control(cont.)

No	BUTTON	FUNCTION
8		On Timer button. The On Timer enables you to **switch on** the air conditioner automatically after a given period of time that is from 30 minutes to 24 hours. To set the operating time, press the On Timer button one or more times until the required time display.
9		Off Timer button. The Off Timer enables you to **switch off** the air conditioner automatically after a given period of time that is from 30 minutes to 24 hours. To set the operating time, press the Off Timer button one or more times until the required time display.
10		Timer Set/Cancel button. After setting On Timer or Off Timer, press the Timer Set/Cancel button to set it completely. And press the Timer Set/Cancel button again to cancel On Timer or Off Timer set.
11		Digital *i* On/Off button. If you want to turn off the display during operation press the Digital i On/Off button.

2-1-2 Name & Function of Key in remote control

1. AUTO MODE : In this mode, operation mode(COOL, HEAT) is selected automatically by the room temperature of initial operation.

Room Temp.	Operation Type
Tr≥ 21°C+ΔT	Cool Operation (Set Temp.:24˚C+ΔT)
21°C +ΔT>Tr	Heat Operation (Set Temp.:22˚C+ΔT)

   ΔT= -1°C, -2°C, 0°C, +1°C, +2°C
   ΔT is controlled by setting temperature up/down key of remote control

2. COOL MODE : The unit operates according to the difference between the setting and room temperature. (18°C~30°C)

3. HEAT MODE : The unit operates according to the difference between the setting and room temperature.(16°C~30°C)
   *Prevention against cold wind : In order to prevent the cool air from flowing out at the heat mode, the indoor fan does not operate or operates very slowly in the following cases. At this time, the indoor heat exchanger will be preheating.
   - For 3~5 minutes after the initial operation
   - For deicing operation
   - The operation of an indoor fan in accordance with the temperature of an indoor heat exchanger

The temperature of indoor heat exchanger	Indoor fan speed
below 28˚C	off
28˚C~below 34˚C	LL Speed
34˚C~below 40˚C	L Speed
above 40˚C	Setting Speed

   *High temperature release function : It is a function to detect an outdoor overload by the sensor of an indoor heat exchanger and to turn the outdoor fan or the compressor ON/OFF for safety.
   *Deice : Deicing operation is controlled by indoor unit's heat exchanger temperature and accumulating time of compressor's operation.
   Deice ends by sensing of the processing time by deice condition.

4. DRY MODE : Has 3 states, each determined by room temperature.
   The unit operates in DRY mode.
   *Compressor ON/OFF Time is controlled compulsorily (can not set up the fan speed, always breeze).
   *Protective function : Low temperature release. (Prevention against freeze)

5. TURBO MODE : This mode is available in AUTO, COOL, HEAT, DRY, FAN MODE.
   When this button is pressed at first, the air conditioner is operated "powerful" state for 30 minutes regardless of the set temperature, room temperature.
   When this button is pressed again, or when the operating time is 30 minutes, turbo operation mode is canceled and returned to the previous mode.
   *But, if you press the TURBO button in DRY or FAN mode that is changed with AUTO mode automatically.

6. SLEEP MODE : Sleep mode is available only in COOL or HEAT mode.
   The operation will stop after 6 hours.
   *In COOL mode : The setting temperature is automatically raised by 1°C each 1hour When the temperature has been raised by total of 2°C, that temperature is maintained.
   *In HEAT mode : The setting temperature is automatically dropped by 1°C each 1hour.
   When the temperature has been dropped by total of 2°C, that temperature is maintained.

7. FAN SPEED : Manual (3 step), Auto (4 step)
   Fan speed automatically varies depending on both the difference between setting and the room temperature.

8. COMPULSORY OPERATION :
   For operating the air conditioner without the remote control.
   *The air conditioner starts up in the most suitable mode for the room temperature:

Room Temperature	Operating Mode	Temperature Setting
Less than 21˚C	Heat	24˚C approx.
21˚C or above	Cool	22˚C approx.

9. SWING : BLADE-H is rotated vertically by the stepping motor.
   *Swing Set : Press the button under the remote control is displayed on LCD the and the blades move up and down. If the one more time press the button, blades location is stop.

10. SETTING THE ON/OFF TIMER. :
    *ON TIMER : The On Timer enables you to switch on the air conditioner automatically after a given period of time. You can set the period of time from 30 minutes to 24 hours.
    *OFF TIMER : The Off Timer enables you to switch off the air conditioner automatically after a given period of time. You can set the period of time from 30 minutes to 24 hours.

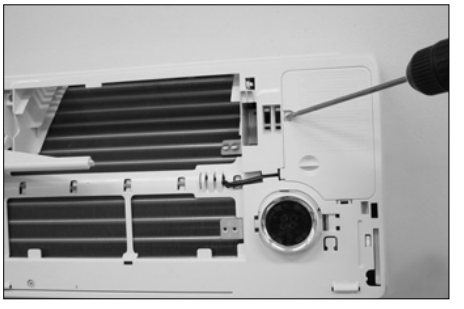
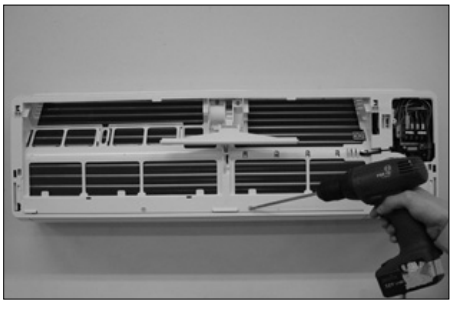
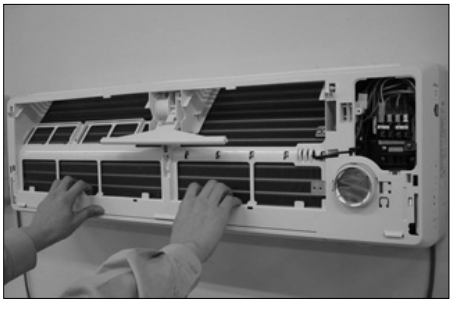
11. BUZZER SOUND : Whenever the On/Off button is pressed or whenever change occurs to the condition which is set up or select, the compulsory operation mode, buzzer is sounded "beep".

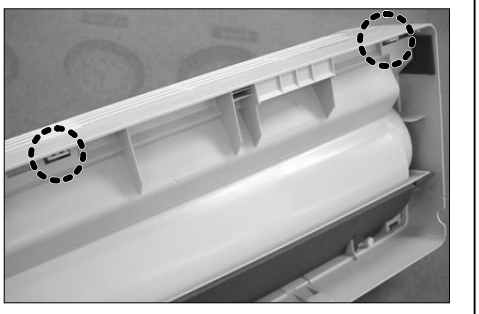
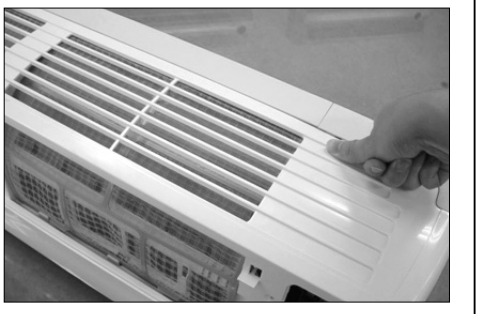
3. Disassembly and Reassembly

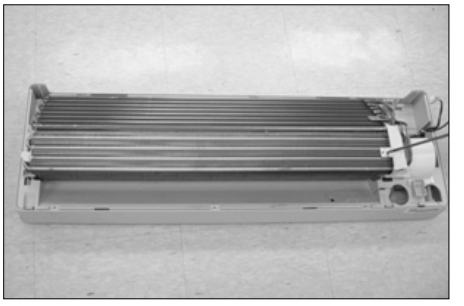
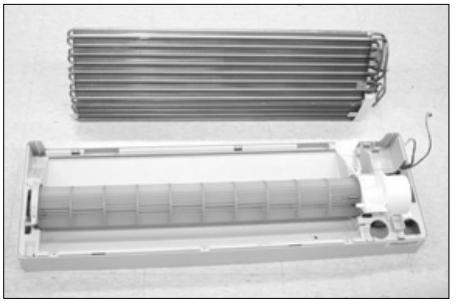
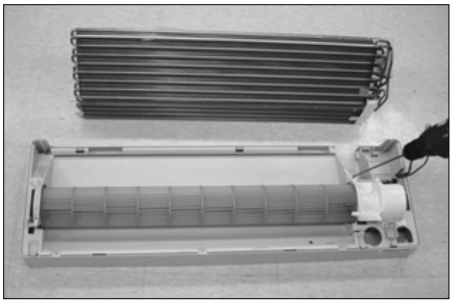
Stop operation of the air conditioner and remove the power cord before repairing the unit.

3-1 Indoor Unit

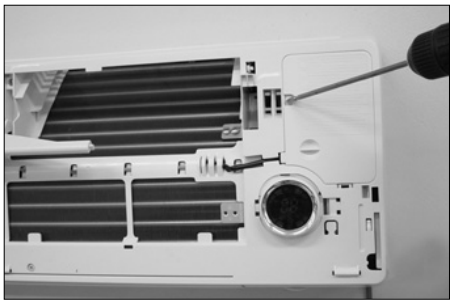
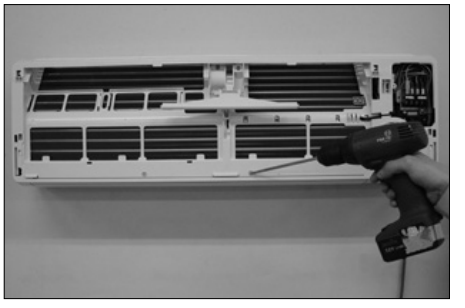
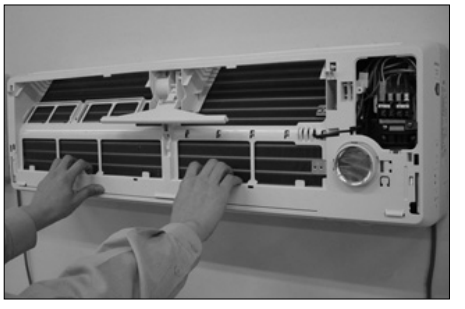
3-1-1 MH026FPEA / MH035FPEA

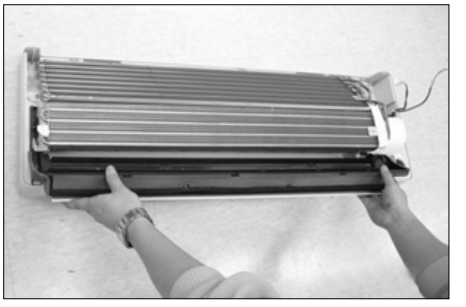
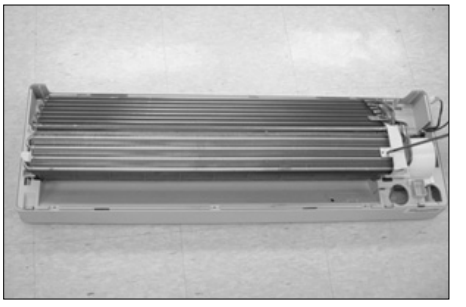
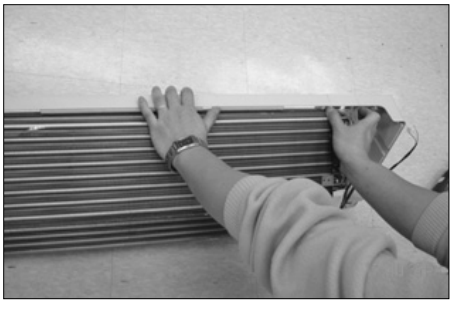
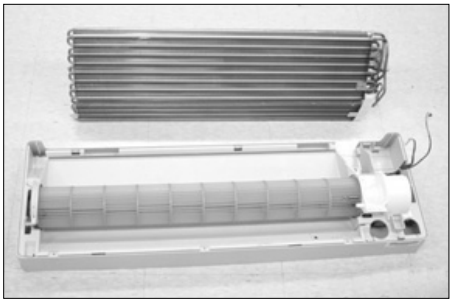
No	Parts	Procedure	Remark
1	Front Panel	1) Stop the air conditioner operation and shut off the main power. 2) Detach tape of Front Panel upper.	
		3) Slide the lower Front Grille down, then disassemble it by pulling it forwards. 4) Open the upper Front Grille by pulling right and left sides of the Grille. 5) Take the left and right Filter out. 6) Loosen one of the right screw and detach the Terminal Cover. 7) Detach the thermistor from the Front Grille.	
		8) Loosen 5 fixing screws of Front Grille.	
		9) Pull the lower left and right of discharge softly for the outside cover to be pulled out.	

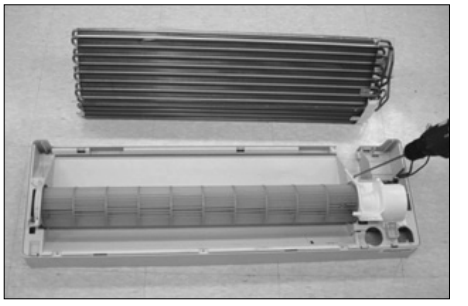
No	Parts	Procedure	Remark
		10) At first, press the left and center hook of the back side of the Panel Grille with the thumb to remove the hook. And press the right of the upper side of the Panel Grille with the fingers. And then disassemble the Panel Grille.	 
2	Electrical Parts (Main PCB)	1) Take all the connector of PCB upper side out.(Including Power Cord) 2) Detach the outdoor unit connection wire from the Terminal Block. 3) If pulling the main PCB up, it will be taken out.	
3	Tray Drain	1) Pull Tray Drain out from the Back Body.	

No	Parts	Procedure	Remark
4	Heat Exchanger	1) Loosen 2 fixing earth screws of right side. 2) Detach the Connection Pipe. 3) Detach the Holder Pipe at the rear side. 4) Loosen 3 fixing screws of right and left side.	
		5) Detach the Heat Exchanger from the indoor unit.	
			
5	Fan Motor & Cross Fan	1) Loosen 2 fixing screws and detach the Motor Holder. 2) Loosen the fixing screw of Fan Motor. (with a M3 wrench) 3) Detach the Fan Motor from the Fan.	
		4) Detach the Fan from the left Holder Bearing.	

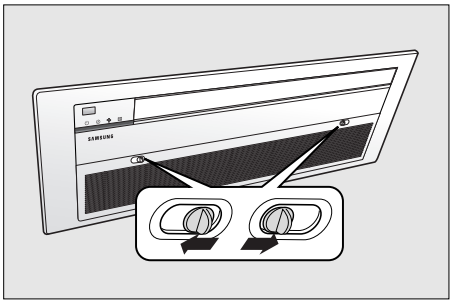
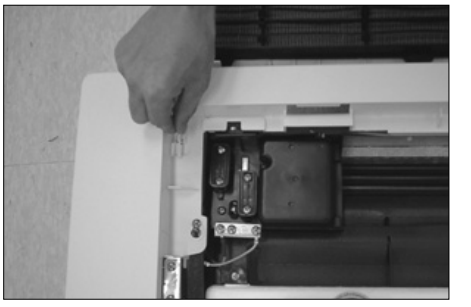
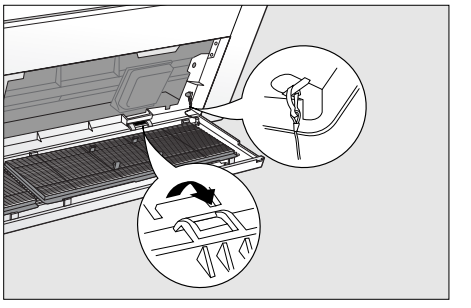
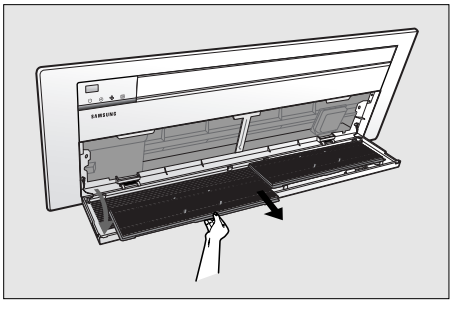
3-1-2 MH052FPEA

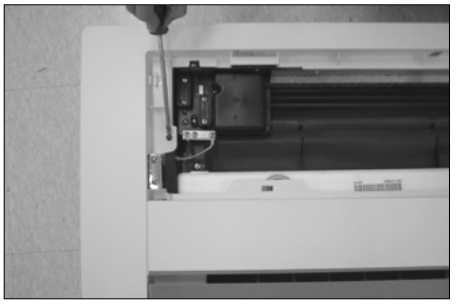
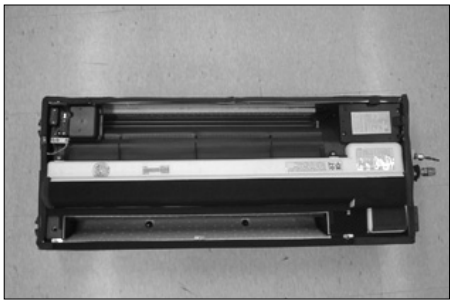
No	Parts	Procedure	Remark
1	Front Panel	1) Stop the air conditioner operation and shut off the main power. 2) Detach tape of Front Panel upper.	
		3) Slide the lower Front Grille down, then disassemble it by pulling it forwards. 4) Open the upper Front Grille by pulling right and left sides of the Grille. 5) Take the left and right Filter out. 6) Loosen one of the right screw and detach the Terminal Cover. 7) Detach the thermistor from the Front Grille.	
		8) Loosen 5 fixing screws of Front Grille.	
		9) Pull the lower left and right of discharge softly for the outside cover to be pulled out.	
		10) In order to disassemble the Panel Grille, press, in order, the left, center, and right of the upper side of the Panel Grille with the palm of the hand to remove the hook. And then disassemble the Panel Grille.	

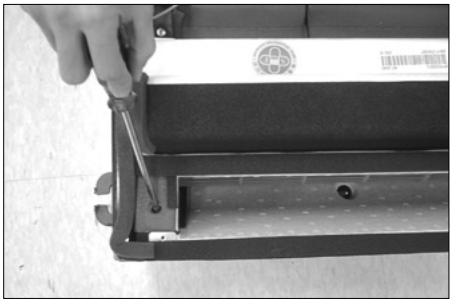
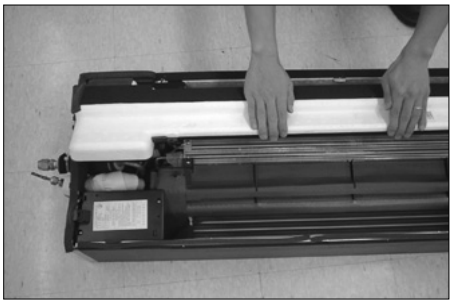
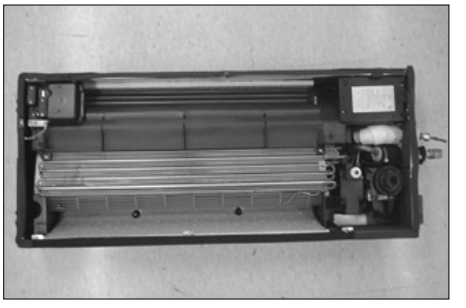
No	Parts	Procedure	Remark
2	Electrical Parts (Main PCB)	1) Take all the connector of PCB upper side out.(Including Power Cord) 2) Detach the outdoor unit connection wire from the Terminal Block. 3) If pulling the main PCB up, it will be taken out.	
3	Tray Drain	1) Pull Tray Drain out from the Back Body.	
4	Heat Exchanger	1) Loosen 2 fixing earth screws of right side. 2) Detach the Connection Pipe. 3) Detach the Holder Pipe at the rear side. 4) Loosen 3 fixing screws of right and left side. 5) Detach the Heat Exchanger from the indoor unit.	  

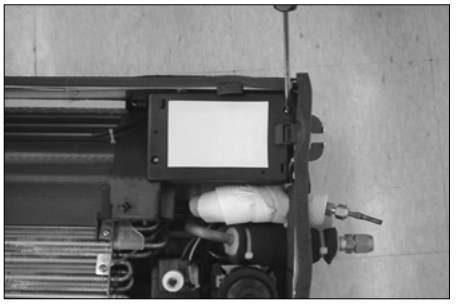
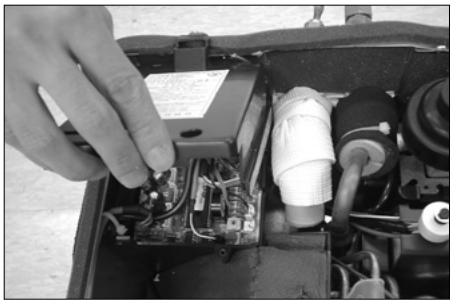
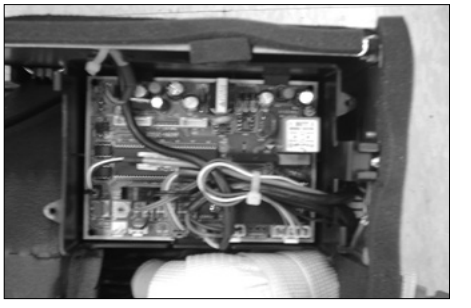
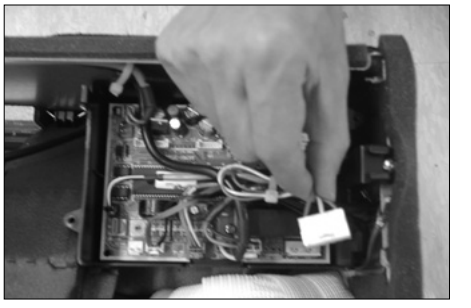
No	Parts	Procedure	Remark
5	Fan Motor & Cross Fan	1) Loosen 2 fixing screws and detach the Motor Holder. 2) Loosen the fixing screw of Fan Motor. (with a M3 wrench) 3) Detach the Fan Motor from the Fan.	
		4) Detach the Fan from the left Holder Bearing.	

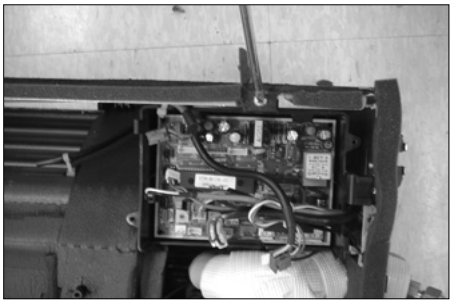
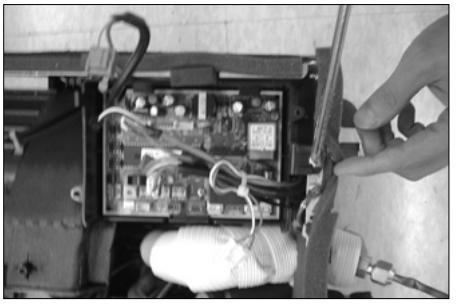
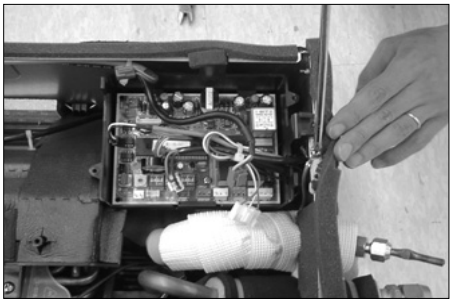
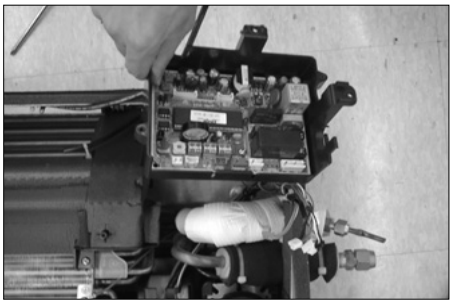
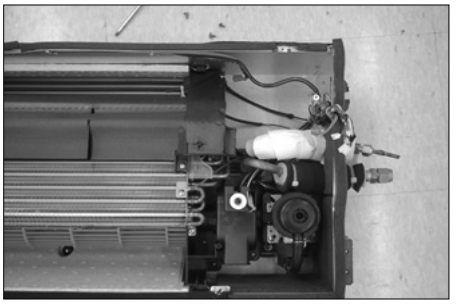
3-1-3 MH026FKEA / MH035FKEA

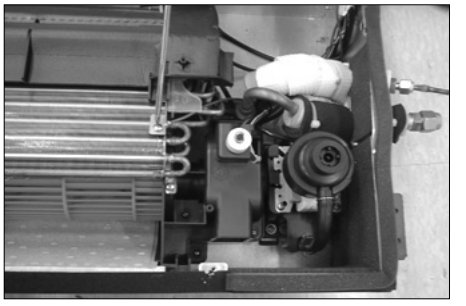
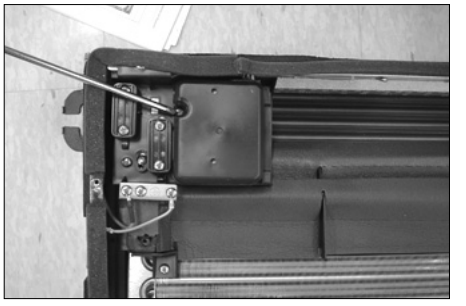
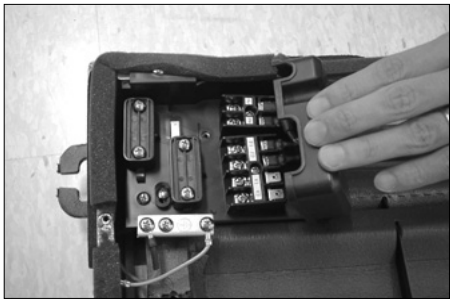
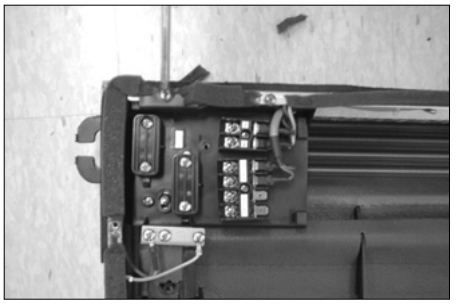
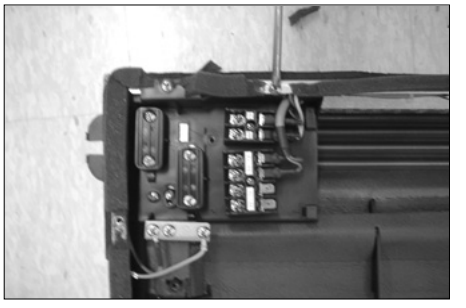
No	Parts	Procedure	Remark
1	Front Grille & Filter	1) Open the Front-Grille by pushing the tabs on the grille. **IMPORTANT** You must give attention when disassembling the Front-Grille and must check the safety clips have been installed. If you don't ensure them, the Front Grille will drop suddenly and you will be hurt.	
		2) Detach the Front Grille. (1) Remove the safety clips. (2) Open the Front Grille about 45˚ and pull it forward.	 
		3) Pull out the Air-Filter.	

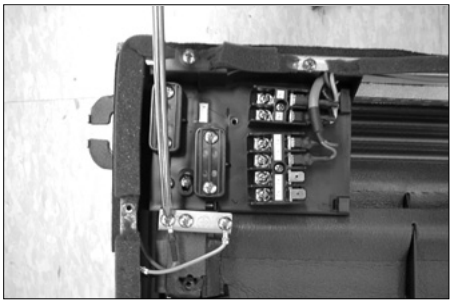
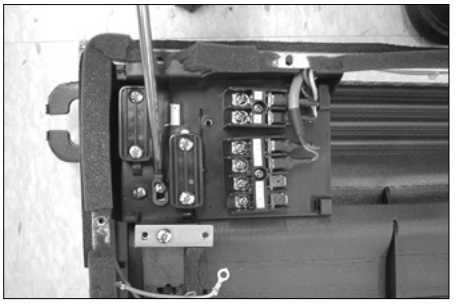
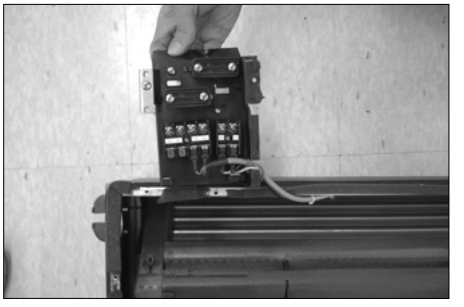
No	Parts	Procedure	Remark
2	Front Panel	1) Loosen 6 fixing screws holding the panel as shown picture.	
		2) Detach the Front-Panel pressing the 2 hooks on the both sides of the indoor unit.	
			

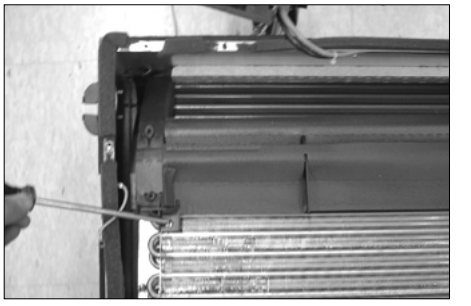
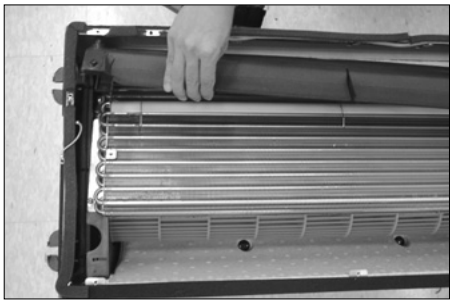
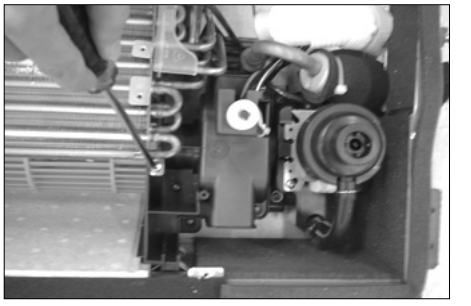
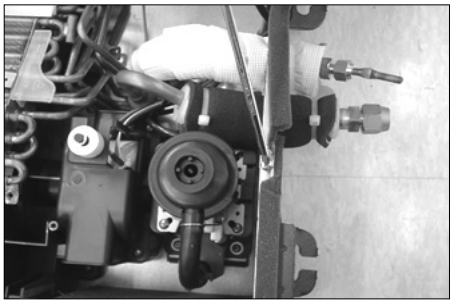
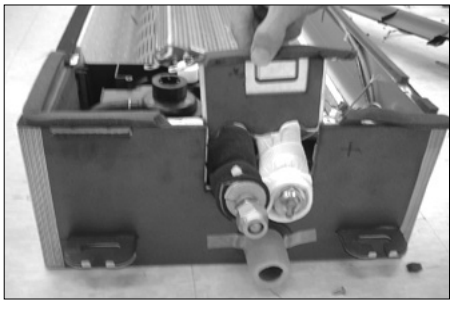
No	Parts	Procedure	Remark
3	Drain Panel	1) Loosen 4 fixing screws for Ass'y Drain Panel around as shown in pictures.	
		2) Detach Ass'y Drain Panel as shown in Pictures.	 

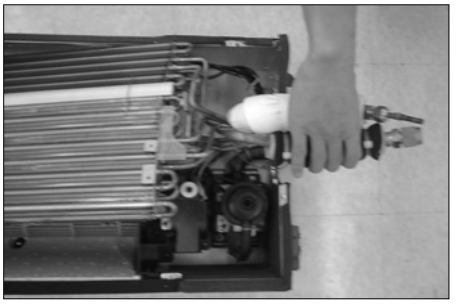
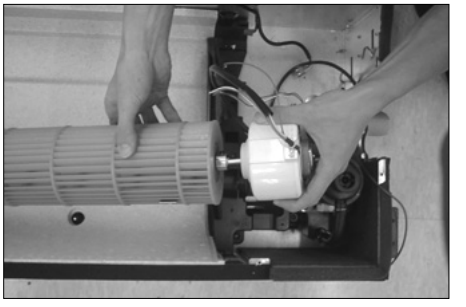
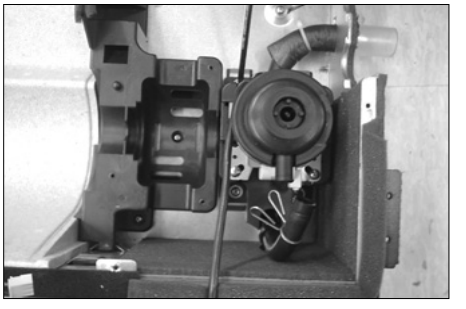
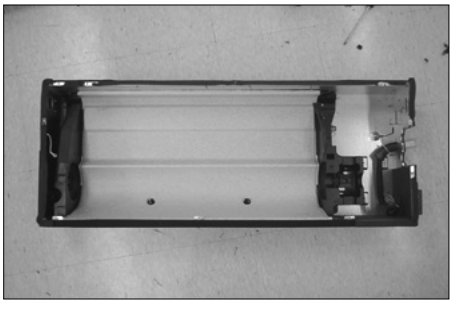
No	Parts	Procedure	Remark
4	Control In	1) Detach the Control Cover after disassembling 2 screws as shown in pictures.	  
		2) Detach the wire connection part of the Ass'y Main PCB as shown in picture.	

No	Parts	Procedure	Remark
		3) Loosen 2 fixing screws of Case Control as shown in pictures.	 
		4) Loosen the fixing screw.	
		5) Detach the Ass'y Case Control part pulling up.	 

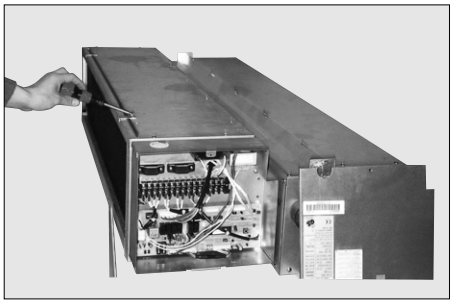
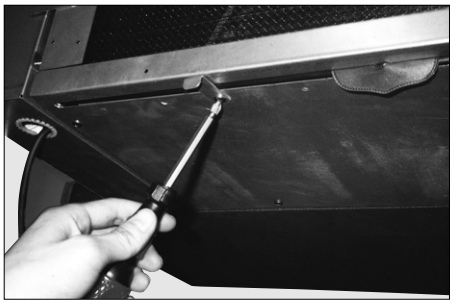
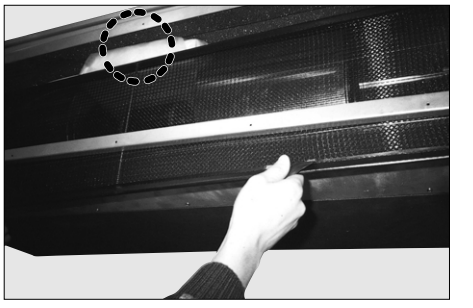
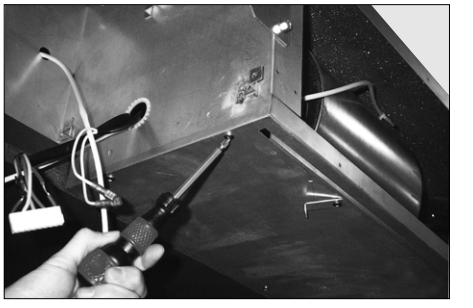
No	Parts	Procedure	Remark
		6) Loosen the fixing screw and detach earth cable.	
		7) Loosen the fixing screw and detach Terminal Cover as shown in pictures.	
			
		8) Loosen 2 fixing screws as shown in pictures.	
			

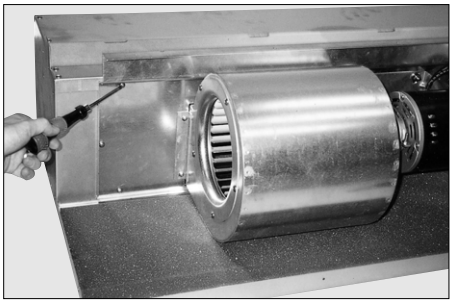
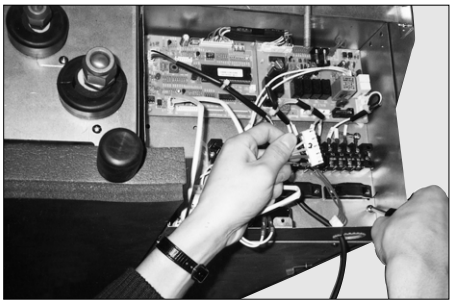
No	Parts	Procedure	Remark
		9) Loosen 2 fixing indicating screws of earth cable and the fixing screw of Base Terminal.	 
		10) Detach Base Terminal as shown in picture.	

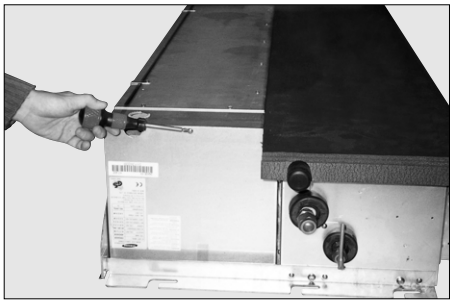
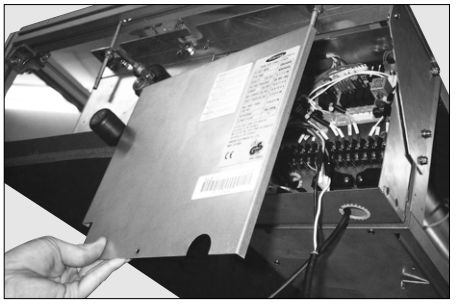
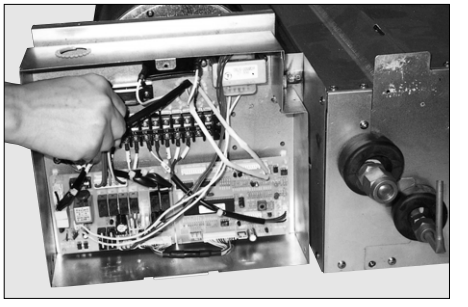
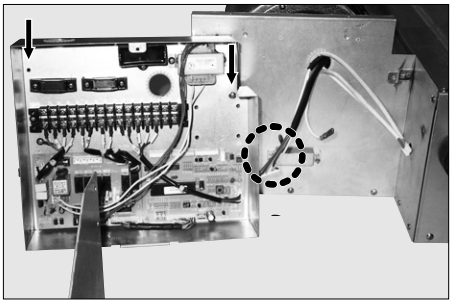
No	Parts	Procedure	Remark
5	Drain Panel Sub	1) Detach Ass'y Drain Panel Sub after loosen 2 fixing screws both side of it.	 
6	Evap	1) Loosen 4 fixing screws of Ass'y Evap around. 2) Loosen 2 fixing screws as shown in picture and detach Ass'y Cabinet-Side LF B.	  

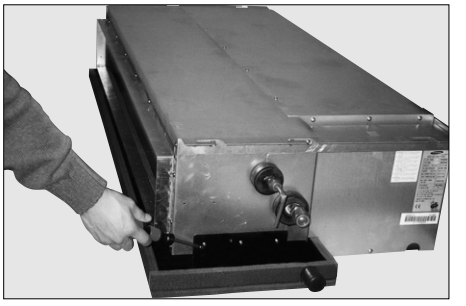
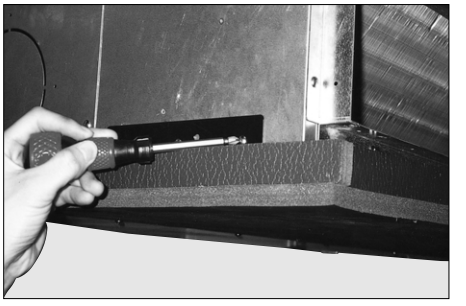
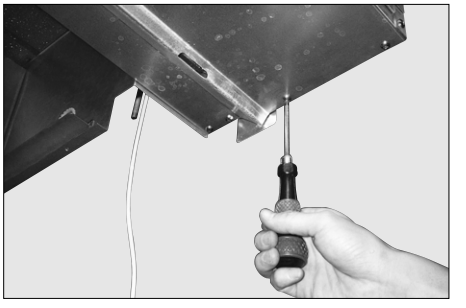
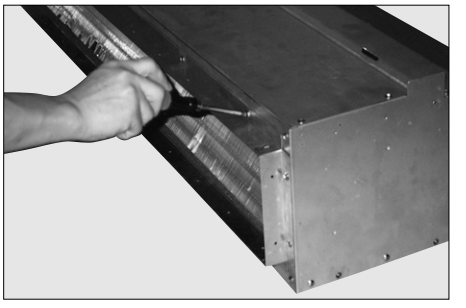
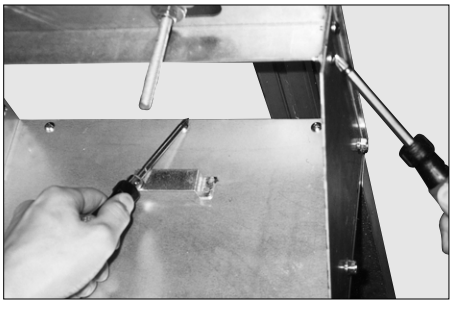
No	Parts	Procedure	Remark
		3) Detach Ass'y Evap pulling up from the indoor unit as shown in picture.	
7	Cross Fan	1) Loosen 3 fixing screws of cover Fan Motor and detach cover Fan Motor.	
		2) Detach Ass'y Cross Fan as shown in picture.	
8	Drain Pump	1) Loosen 4 fixing screws as shown in picture.	
		2) Detach Drain Hose and detach Ass'y Drain Pump as shown in pictures.	

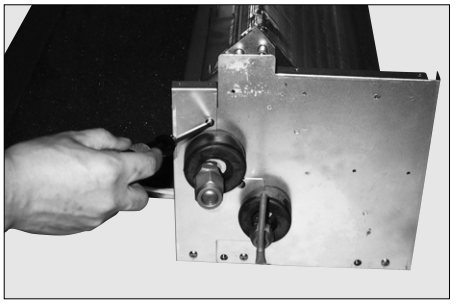
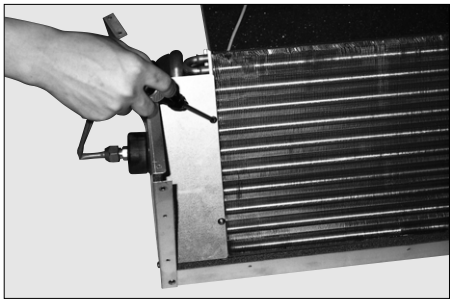
3-1-4 MH052FDEA

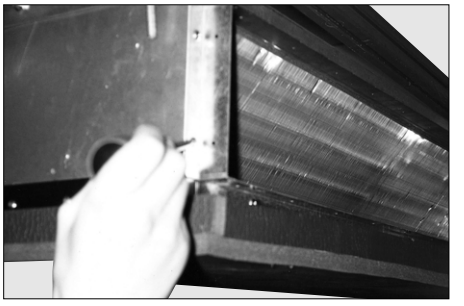
No	Parts	Procedure	Remark
1	Filter-Pre	1) Loosen 2 fixing screws of indication part and then assemble the direction of 2 Plate-Handle places by use of screw as shown in 2).	
		2) Turn the Plate Handle by hand when removing the Filter-Pre.	
		3) When pulling the Filter-Pre handle, the Filter-Pre can be assembled. ✳ Be sure to remove the cushion on the ◌ marked part after initial installation. (It cause the damage of noise).	
2	Blower & Duct	1) After disassembling 9 fixing screws, detach Ass'y Cover Bottom.	

No	Parts	Procedure	Remark
		2) Loosen 6 fixing screws.	
			
		3) Detach the Sensor Holder from the Ass'y Fan Case.	
		4) Detach from Ass'y Control In the capacitor connection wire between the Motor-Fan in and housing Connector.	
		5) Detach the Ass'y Blower and Duct from the set.	

No	Parts	Procedure	Remark
3	Control In	1) Loosen the fixing screw, detach the Cover-Control.	
			
		2) Detach the Motor-Fan in and Sensor Connector connected to PCB.	
		3) Loosen 2 fixing screws.(arrow mark)	
		4) Hold the Ass'y Control In by hand to lift up a little and then release the status of hanging on the hanging slot.	

No	Parts	Procedure	Remark
4	Drain Pan	1) Loosen 4 fixing screws to detach Ass'y Drain Pan. (2 screws each at left and right side)	 
5	EVAP	✳ Work is possible when disassembling the Ass'y Drain Pan. 1) Loosen 8 fixing screws. (4 each at left and right side) 2) Loosen 6 fixing screws. 3) Loosen 5 fixing screws. ✳ It is possible at the status of No.3 Ass'y Control In disassembly at the time.	  

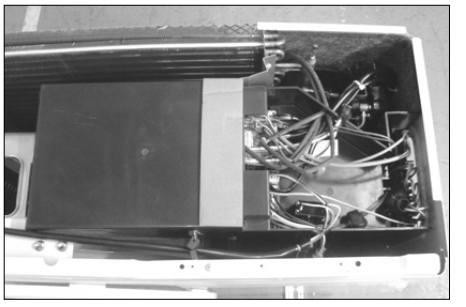
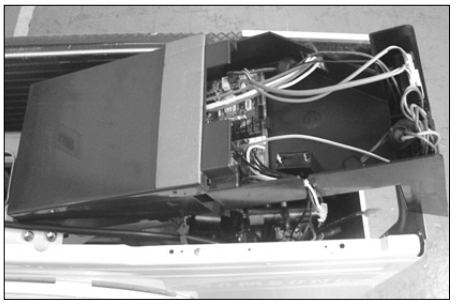
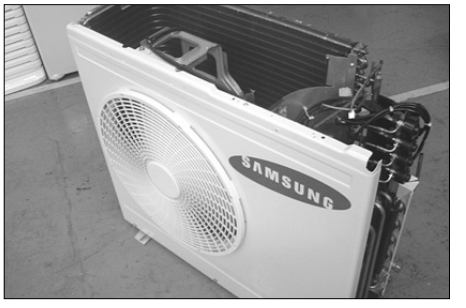
No	Parts	Procedure	Remark
		4) Loosen 4 fixing screws.	
		5) Pull the Cabinet-Side LF, RH by hand to disassemble.	
		6) Loosen 4 fixing screws. (2 each at left and right side)	
		7) Detach it from the set if the Ass'y-Evap pull up.	

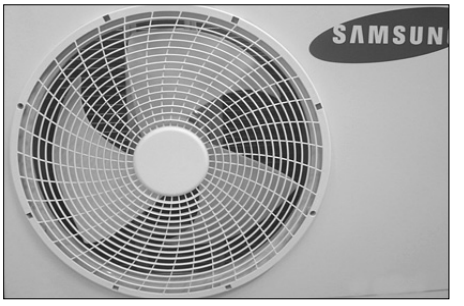
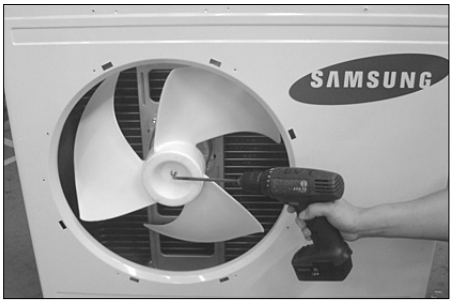
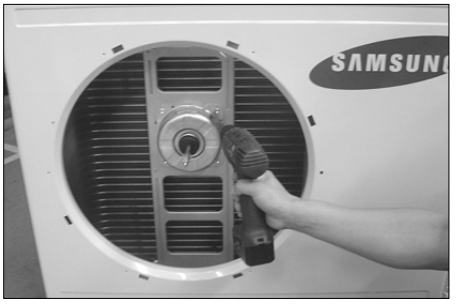
No	Parts	Procedure	Remark
6	Holder Outlet	✳ When connecting canvas to the discharge side. 1) Loosen 4 fixing screws. (2 each at left and right side)	
		2) Loosen 12 fixing screws. (6 each at upper and lower side) ✳ After connecting canvas to the disassembled Ass'y Holder Outlet 2), attach the Ass'y Holder Outlet to the set in the reverse order.	

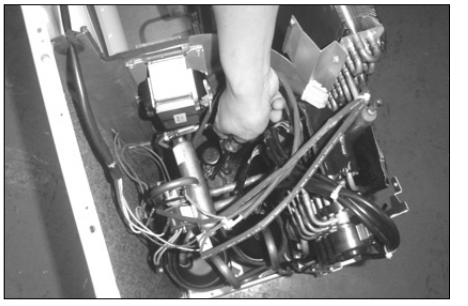
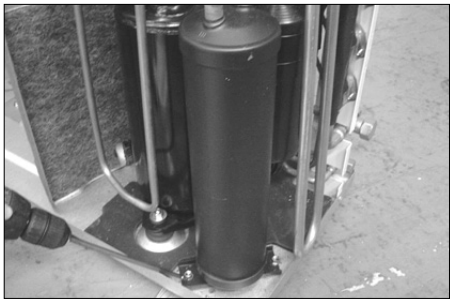
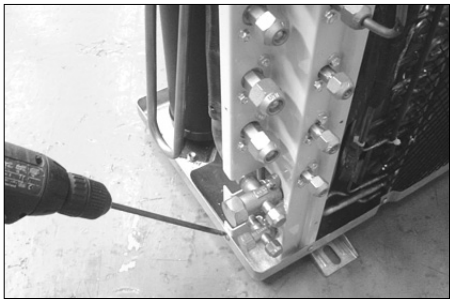
3-2 Outdoor Unit

Take care of the electrical shock by contact on the charging parts before the discharge after power off. (If takes approximately 2 minutes to discharge.)

3-2-1 MH068FXEA4/MH080FXEA4

No	Parts	Procedure	Remark
1	Common Work & Control Out	1) Loosen the fixing screw and detach the Cover-Valve. 2) Detach the Cable-Connector Wire from the Terminal-Block.	
		3) Loosen 5 fixing screws and detach the Cabinet-Upper. 4) Loosen 5 fixing screws from the Ass'y-Control Out.	
		5) Detach the Terminal-Housing from the Ass'y-Control Out. 6) Detach the Ass'y-Control Out from the outdoor unit.	
		7) Loosen 7 fixing screws and detach the Cabinet-Side.	

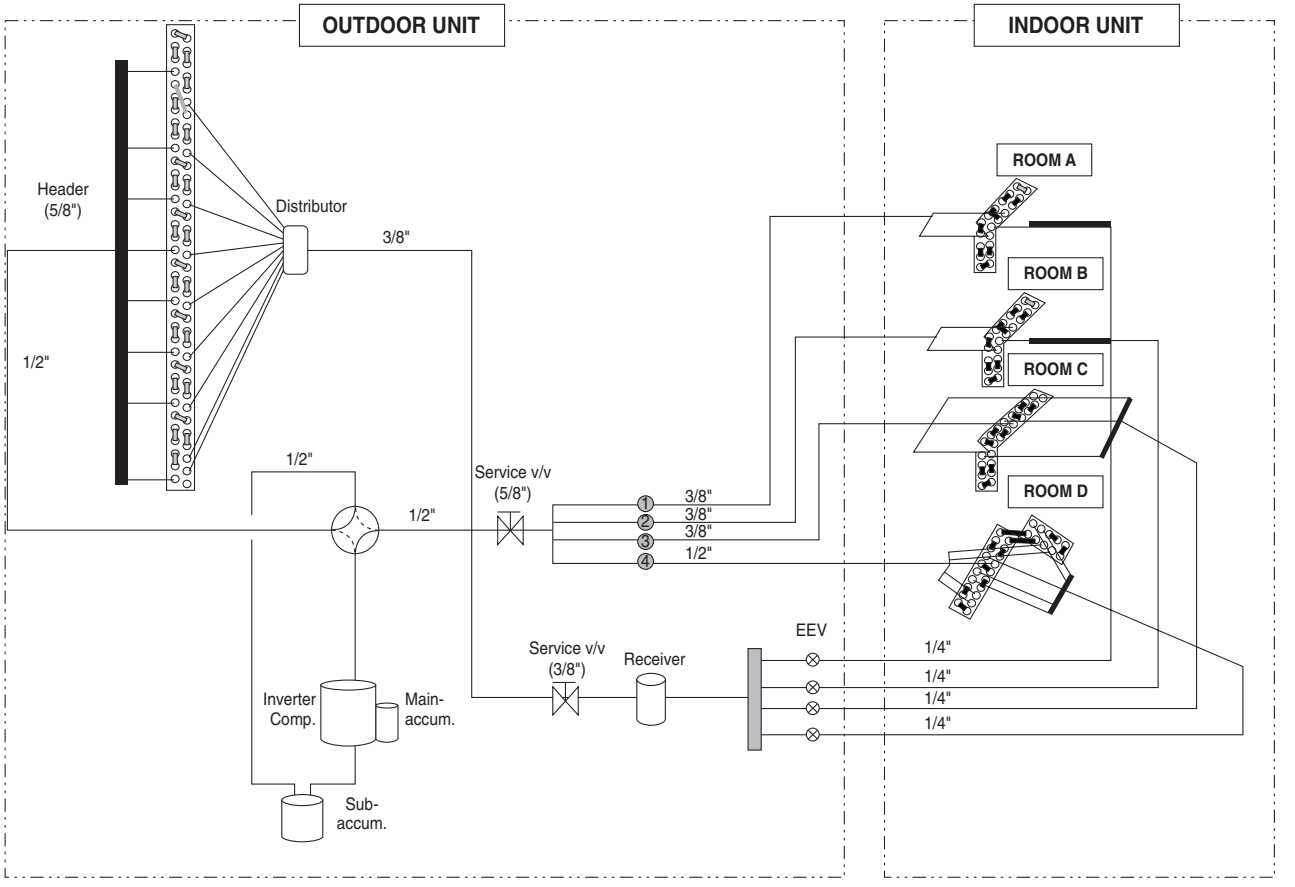
No	Parts	Procedure	Remark
2	Fan-Motor	1) Loosen 2 fixing screws of the Guard-Fan.	
		2) Remove the nut flange. (Turn to the clockwise.) 3) Detach the Fan.	
		4) Loosen 4 fixing screws to detach the Motor.	
3	Heat Exchanger	1) Loosen 3 fixing screws of Ass'y-Frame and Partition. 2) Detach the inlet and outlet pipe by welding. 3) Detach the Heat Exchanger.	

No	Parts	Procedure	Remark
4	Compressor	1) Open the Terminal Cover of Compressor and unscrew the Connection Terminal. 2) Detach the inlet and outlet pipe of compressor by welding. 3) Detach the inlet and outlet pipe of condenser by welding.	
		4) Loosen the 3 bolts of the lower part. 5) Detach the Compressor.	
			
			

4. Refrigerating Cycle Diagram

4-1 MH068FXEA4 / MH080FXEA4

ex) 4 Rooms(MH026FPEA+MH026FPEA+MH035FPEA+MH052FPEA)



5. Set Up the Model Option

5-1 Setting Option Setup Method

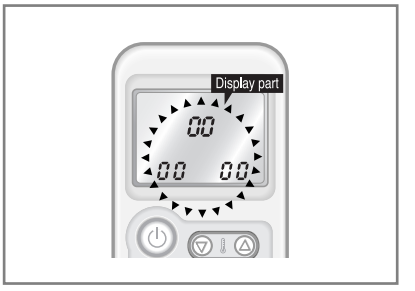
ex) Option No. : 060064- 170373

Step 1 : **Enter the Option Setup mode.**

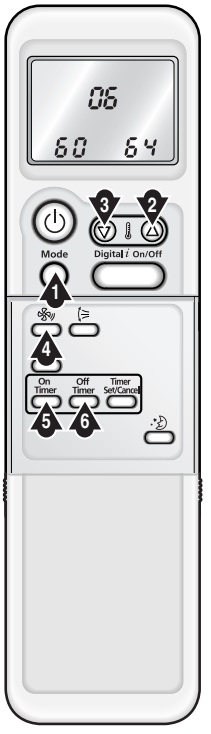
1st Take out the batteries of remote control.

2nd Press the temperature (▽ / △) button simultaneously and insert the battery again.

3rd Make sure the remote control display shown as 00 00 00 .



Step 2 : **Enter the Option Setup mode and select your option according to the following procedure.**



✳ Setting is not required if you must 0 a value which has a 0 default.

1

The default value is 00 00 00 .
Otherwise, push the Mode button to 0 .
Every time you push the button, the display panel reads 1 or 0 repeatedly.

2

Push the △ button to set the display panel to 6 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

3

Push the ▽ button to set the display panel to 6 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

4

Push the button to set the display panel to 0 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

5

Push the On Timer button to set the display panel to 6 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

6

Push the Off Timer button to set the display panel to 4 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

✳ Setting is not required if you must 0 a value which has a 0 default.

7 Press Mode button, then the default value is 00 10 00 .

8 Push the ▲ button to set the display panel to 7.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

9 Push the ▼ button to set the display panel to 0.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

10 Push the button to set the display panel to 3.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

11 Push the On Timer button to set the display panel to 7.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

12 Push the Off Timer button to set the display panel to 3.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

Step 3 : Upon completion of the selection, check you made right selections.

Press the Mode Selection key, Mode to set the display part to 0 and check the display part.

➡ The display part shows 60 06 64 .

Press the Mode Selection key, Mode to set the display part to 1 and check the display part.

➡ The display part shows 03 17 73 .

Step 4 : Pressing the ON/OFF button (⏻)

When pressing the operation ON/OFF key with the direction of remote control for unit, the sound "Ding" or "Diriring" is heard and the OPERATION ICON(≋) lamp of the display is flickering at the same time, then the input of option is completed. (If the diriring sound isn't heard, try again pressing the ON/OFF button.)

Step 5 : Unit operation test-run

First, Remove the battery from the remote control.

Second, Re-insert the battery into the remote control.

Third, Press ON/OFF key with the direction of remote control for set.

• Error Mode

1st If all lamps of indoor unit are flickering, Plug out, plug in power plug again and press ON/OFF key to retry.

2nd If the unit is not working properly or all lamps are continuously flickering after setting the option code, see if the correct option code is set up for it's model.

■ Table of the option code

MODEL	OPTION CODE
MH026FPEA	OD6400-142351
MH035FPEA	OD7404-162362
MH052FPEA	OD5408-192351
MH026FKEA	005600-14221D
MH035FKEA	005600-162340
MH052FDEA	015200-190000

6. Troubleshooting

6-1 Items to be checked first

1. The input voltage should be rating voltage ±10% range.
   The airconditioner may not operate properly if the voltage is out of this range.

2. Is the link cable linking the indoor unit and the outdoor unit linked properly?
   The indoor unit and the outdoor unit shall be linked by 4 wires.
   2 wires are for power and other 2 wires are for communication, total 4 wires on each indoor unit. Check the terminals if the indoor unit and outdoor unit are properly linked by the same number of cables and if connecting position on the terminal is correct.
   Otherwise the airconditioner may not operate properly.

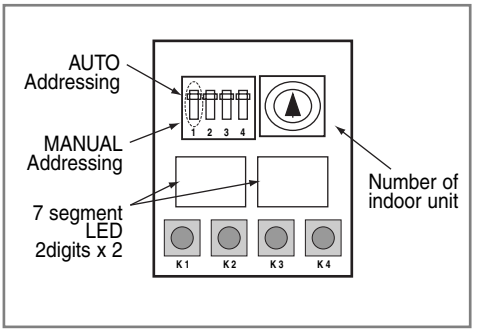
3. When a problem occurs due to the contents illustrated in the table below it is a symptom not related to the malfunction of the airconditioner.

No	Operation of air conditioner	Explanation
1	In a COOL operation mode, the compressor does not operate at a room temperature higher than the setting temperature that the INDOOR FAN should operate. In a HEAT operation mode, the compressor does not operate at a room temperature lower than the setting temperature that indoor fan should operate.	In happens after a delay of 3 minutes when the compressor is reoperated. The same phenomenon occurs when a power is on. As a phenomenon that the compressor is reoperated after a delay of 3 minutes, the indoor fan is adjusted automatically with reference to a temperature of the air blew
2	Fan speed setting is not allowed in AUTO(Auto) or DRY( ) mode.	The speed of the indoor fan is set to LL in DRY mode. Fan speed is 5 steps and is selected automatically in AUTO mode.
3	Compressor stops operation intermittently in DRY( ) mode.	Compressor operation is controlled automatically in DRY mode depending on the room temperature and humidity.
4	Compressor of the outdoor unit is operating although it is turned off in a HEAT mode.	When the unit is turned off while de-ice is activated, the compressor continues operation for up to 12 minutes (maximum) until the deice is completed.
5	Timer LED( ) only of the indoor unit lights up and the air conditioner does not operate.	Timer is being activated and the unit is in ready mode. The unit operates normally if the timer operation is cancelled.
6	The compressor and indoor fan stop intermittently in HEAT mode.	The compressor and indoor fan stop intermittently if room temperature exceeds a setting temperature in order to protect the compressor from overheated air in a HEAT mode.
7	Indoor fan and outdoor fan stop operation intermittently in a HEAT mode.	The compressor operates in a reverse cycle to remove exterior ice in a HEAT mode, and indoor fan and outdoor fan do not operate intermittently for within 20% of the total heater operation.
8	The compressor stops intermittently in a COOL mode or DRY mode, and fan speed of the indoor unit decreases.	The compressor stops intermittently or the fan speed of the indoor unit decreases to prevent inside/outside air frozen depending on the inside/outside air temperature.

6-2 Checking and Testing operations

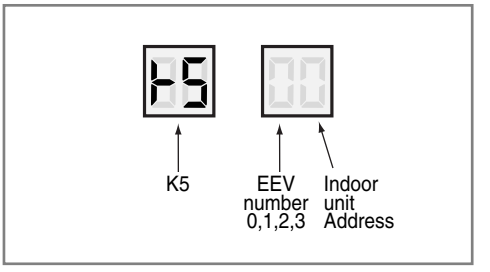
To complete the installation, perform the following checks and tests to ensure that the air conditioner is operating correctly.

1. Review all the following elements in the installation:
   - Installation site strength
   - Piping connection tightness not to leak any gas
   - Connection wiring
   - Heat-resistant insulation of the piping
   - Drainage
   - Earthing wire connection
   - Setting number of the indoor unit installed (Outdoor unit SW)
   - Addressing mode (AUTO or MANUAL)
   - Address number on each indoor unit (Manual addressing mode)
   - Correct operation for checking connection (follow the step below)

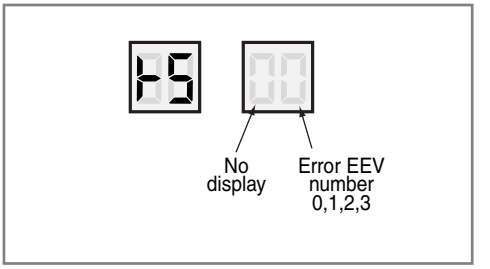


2. Apply the power to the outdoor unit
   Outdoor unit will try to communicate the specified number of indoor units by SW01 on outdoor display PCB.
   - If connection is normal then LED shows "normal display", right 2 digit of LED on Display PCB displays '00' and left 2 digit of LED displays indoor unit address number.
     This number is displayed only while communicating, so each number is displayed for a short time and in order.
   - If Error code, started with 'E', is displayed on the LED check the indoor unit, outdoor unit or wiring according to the error code table.
   - If nothing is displayed on the LED, check the power source, power cable and FUSE on the outdoor controller.

■ **In case of AUTO ADDRESSING mode (SW02-1:ON)**
- Press K2 switch 4 times to start "PIPE CHECK MODE".
  After starting this mode, LED on the left is displayed "K5" and press K2 switch once to cancel this mode .
- If this "PIPE CHECK MODE" finished without error, LED shows "normal display" and press K3 to restart the system.
- This mode is for finding the combination between indoor unit and each valve on the outdoor unit. Because refrigerant flow is controlled with EEV in the outdoor, controller should know which EEV will controls which indoor unit.
- It takes 5 to 50 minute to complete. This time depends on the outdoor temperature and number of indoor unit.
- During this mode LED on the right 2 digit shows EEV number and the indoor address which is checking at the time. (see right figure)
- If checking finished with no error, LED display returns to "normal display".
- If finished with error, right digit will show the EEV number which is the wrong PIPE connection. In case of two or more wrong connection, error EEV number will display each for 1 seconds in order.
  After confirm the error, press K3 to system reset and do this mode again.
- Once "PIPE CHECK MODE" is done normally, each indoor unit will remember the given address number by the outdoor unit and no need to do this checking.
  But in case of listed below, PIPE CHECK MODE should be done again.
  - Re-install the system (ie. house moving)
  - Remove indoor unit, Add new indoor unit, Change indoor PCB for repair.
  - Mode change from "manual addressing" to "auto addressing"



LED display under PIPE CHECK MODE



LED display when PIPE CHECK ERROR

- On this mode the controller will ignore the manual address number set on the rotary switch on the indoor PCB.
- To confirm the indoor address number assigned by this mode, use "TEST MODE" and the address number will be displayed on the LED display on the indoor unit.

■ **In case of MANUAL ADDRESSING mode. (SW02-1:OFF)**

Checking the address number correctly on each indoor unit PCB.

- "PIPE CHECK MODE" is also able to use.

● **If Error code is displayed on indoor or outdoor LED, check as follows;**

1. confirm if SW01 setting number and the number of indoor unit installed are the same.

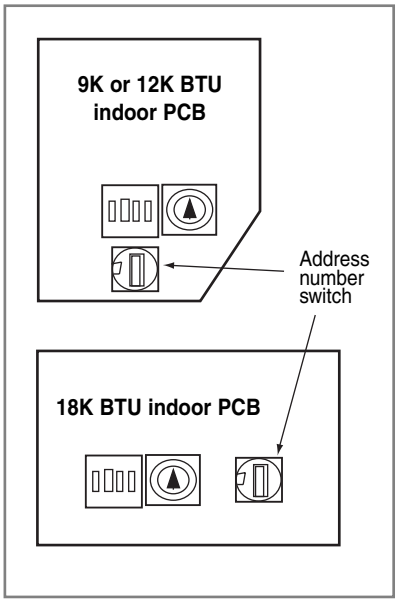
2. If some indoor unit has no power, confirm power cable connection, especially miss-wiring between communication cable and power cable.

3. If error code E101 or E185 is displayed on indoor unit LED, check communication wire and power wire connection.

4. If error code E460 is displayed on outdoor unit LED, AC power line could be connected to outdoor communication terminal, F1 & F2. So check the wiring not only communication line but also power line.

5. If error code E401, E404 or E416 is displayed on outdoor unit LED, check PIPE connection also. Because gas flow to a different indoor unit will case these error.

6. In case of communication error by wrong wiring on one indoor unit, all indoor units display a error code. In this case, correction at the wrong point could solve all indoor unit error display.



The error indicated on the PCB display of outdoor unit

Display		Explanation	Main checking Point
E1	01	Communication error (indoor unable to receive data)	Communication cable connection
E1	02	Communication error (outdoor unable to communicate)	Indoor unit
E1	21	Indoor unit room temperature sensor error (Open/Short)	Indoor unit
E1	22	Indoor unit heat exchanger in temperature sensor error (Open/Short)	Indoor unit
E1	23	Indoor unit heat exchanger out temperature sensor error (Open/Short)	Indoor unit
E1	28	Indoor unit sensor error - Evaporator pipe in sensor detached	Indoor unit
E1	29	Indoor unit sensor error - Evaporator pipe out sensor detached	Indoor unit
E1	30	Indoor unit heat exchanger in & out temperature sensor detached	Indoor unit
E1	61	More than 2 indoor units cool and heat simultaneously	Indoor unit operation mode
E2	01	The number of indoor unit mismatched	Communication wiring
E2	02	Communication error (outdoor unable to receive data)	Communication wiring
E2	03	Communication error between two microcontroller on the outdoor PCB	Outdoor unit PCB
E2	21	Outdoor temperature sensor error (Short/Open) - Error level : over 4.9V(-50˚C) under 0.4V(93˚C)	Temperature sensor
E2	37	Condenser temperature sensor error (Short/Open) - Error level : over 4.9V(-50˚C) under 0.4V(93˚C)	Temperature sensor
E2	46	Condenser temperature sensor detached	Temperature sensor
E2	60	Compressor discharge sensor error (Short/Open) - Error check condition : outdoor temperature over -20˚C - Error level : over 4.95V(-30˚C) under 0.5V(151˚C)	Temperature sensor
E2	61	Compressor discharge sensor detached	Temperature sensor
E3	20	Compressor OLP sensor error (Short/Open) - Error check condition : outdoor temperature over -20˚C - Error level : over 4.95V(-30˚C) under 0.5V(151˚C)	Temperature sensor
E4	01	Indoor unit heat exchanger freezing and compressor stop (cooling mode)	Check pipe matching also(indoor-outdoor)
E4	04	Outdoor unit overload and compressor stop (protection control in heating mode)	Check pipe matching also(indoor-outdoor)
E4	16	Outdoor unit high discharge temperature and compressor stop (protection control in heating mode)	Check pipe matching also(indoor-outdoor)

The error indicated on the PCB display of outdoor unit(cont.)

Display		Explanation	Main checking Point
E4	19	Outdoor unit EEV open error (self diagnosis)	EEV
E4	22	Outdoor unit EEV close error (self diagnosis)	EEV
E4	40	High temperature (over 30˚C) of outdoor as heating mode	Operation mode
E4	41	Low temperature (under -5˚C) of indoor as cooling mode	Operation mode
E4	60	wrong connection between communication and power cable	Wiring indoor and outdoor
E4	61	Inverter compressor starting failure (5 times)	
E4	62	Compressor trip by input current limit control	
E4	63	Compressor trip by OLP temperature limit control	
E4	64	Compressor peak current protection	
E4	65	Compressor overload protection by current	
E4	66	DC-link voltage error (under 150V or over 410V)	
E4	67	Compressor rotation error	
E4	68	Current sensor error	
E4	69	DC-link voltage sensor error	
E4	70	Compressor overload protection	
E4	71	EEPROM error	
E4	72	AC line zero-crossing detection circuit error	
E5	54	NO GAS error (self diagnosis)	

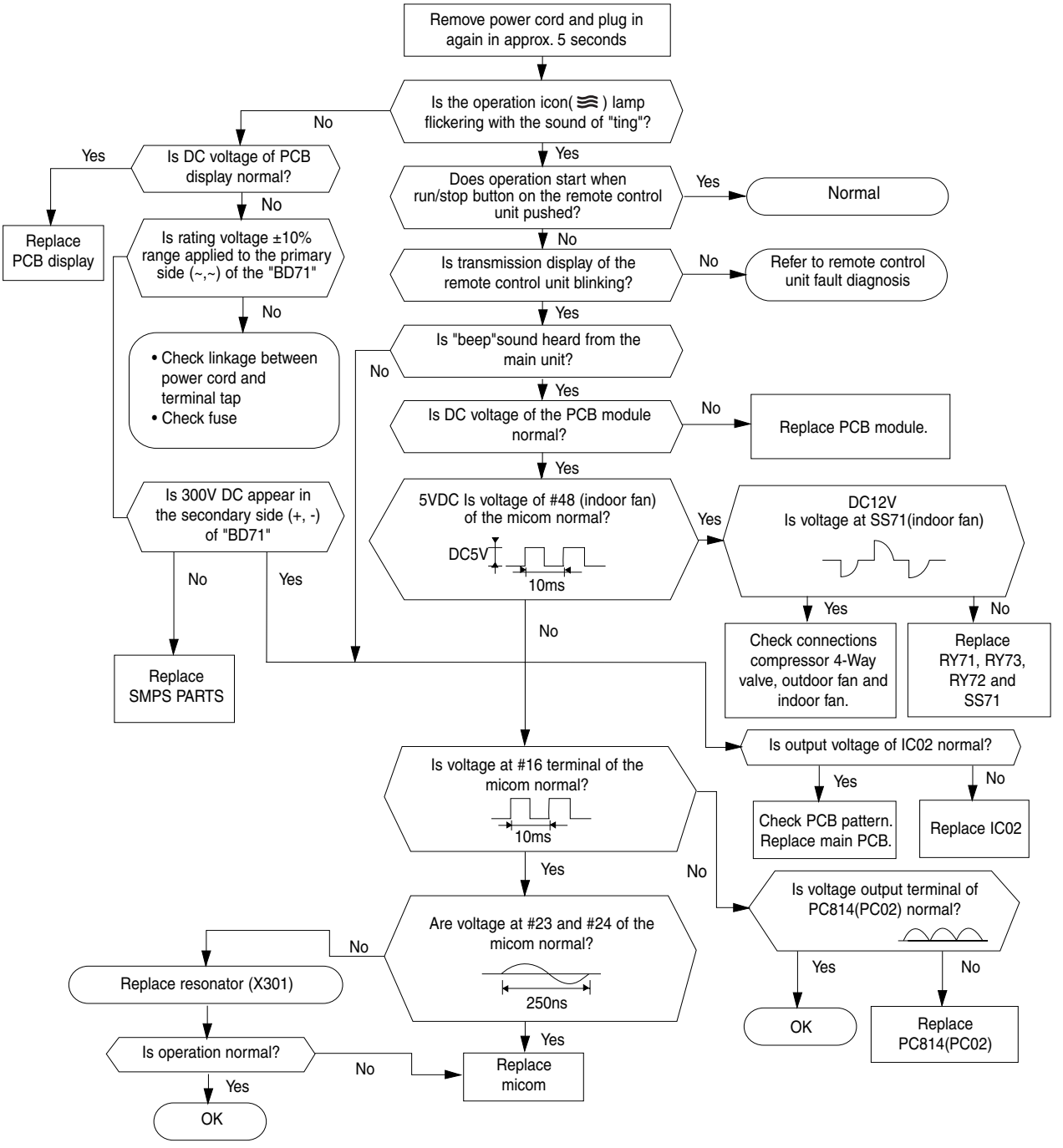
The error indicated on the LED display of Indoor unit

Display	Explanation	Main checking Point / Remark
E 1 ↔ 0 1	Communication error (unable to receive data)	Communication cable connection
E 1 ↔ 0 2	Communication error (outdoor cannot communicate)	Another indoor unit or indoor PCB
E 1 ↔ 2 1	Indoor unit room temperature sensor error (Open/Short)	Room temperature sensor, indoor PCB
E 1 ↔ 2 2	Indoor unit heat exchanger in temperature sensor error (Open/Short)	Heat exchanger in sensor, indoor PCB
E 1 ↔ 2 3	Indoor unit heat exchanger out temperature sensor error (Open/Short)	Heat exchanger out sensor, indoor PCB
E 1 ↔ 2 8	Indoor unit heat exchanger in temperature sensor detached	Heat exchanger in sensor
E 1 ↔ 2 9	Indoor unit heat exchanger out temperature sensor detached	Heat exchanger out sensor
E 1 ↔ 3 0	Indoor unit heat exchanger in & out temperature sensor detached	Heat exchanger in & out sensor
E 1 ↔ 5 4	Indoor unit fan motor malfunction	Fan motor and cable
E 1 ↔ 6 1	More than 2 indoor units cool and heat simultaneously	Another indoor unit operation mode
E 1 ↔ 6 2	EEPROM error	Indoor PCB
E 1 ↔ 6 3	Option code setting error	Option code
E 1 ↔ 8 5	Cable miss-wiring	Cable connection (Indoor & Outdoor unit)
E 2 ↔ 0 1	The number of indoor unit mismatched	Cable connection (another indoor unit & outdoor unit), SW01(outdoor)
E 5 ↔ 5 9	Outdoor unit error	Outdoor unit (Error code)

6-3-1 No Power (completely dead)-Initial diagnosis

1. Checklist :
   1) Is input voltage normal?
   2) Is AC power linked correctly?
   3) Is output voltage of DC regulator IC KA7805 (IC02) normal? (4.5VDC-5.5VDC)

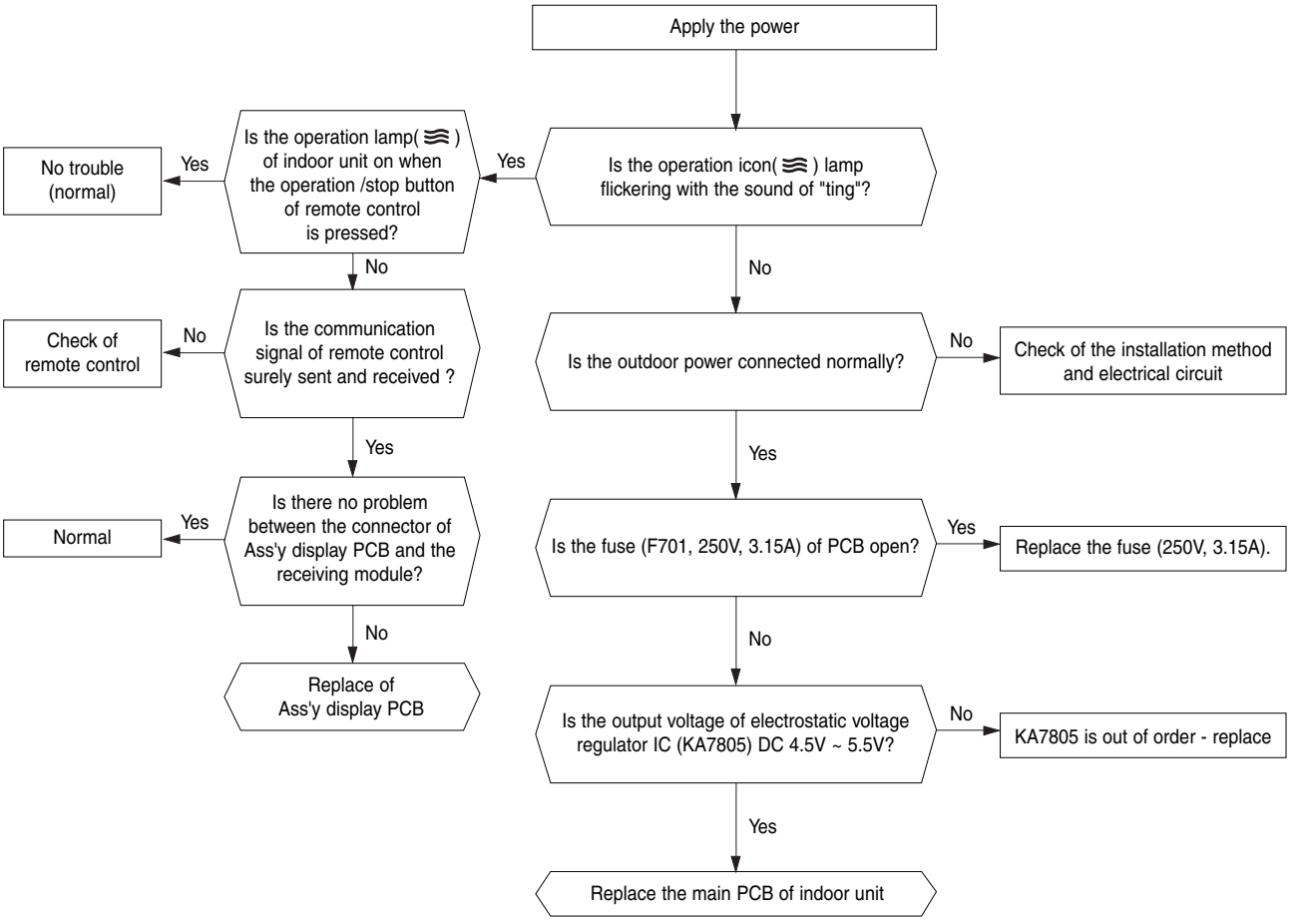
2. Troubleshooting procedure



6-3-2 When the power voltage is not available

1. Checklist :
   1) Is the power voltage is normal? (The rating voltage ±10% range)
   2) Is the power cord is correctly connected and is the contact good?
   3) Does the sound "ting" come out?
      If it doesn't come out the sound "ting", do inspect and repair in accordance with the following inspection sequence.

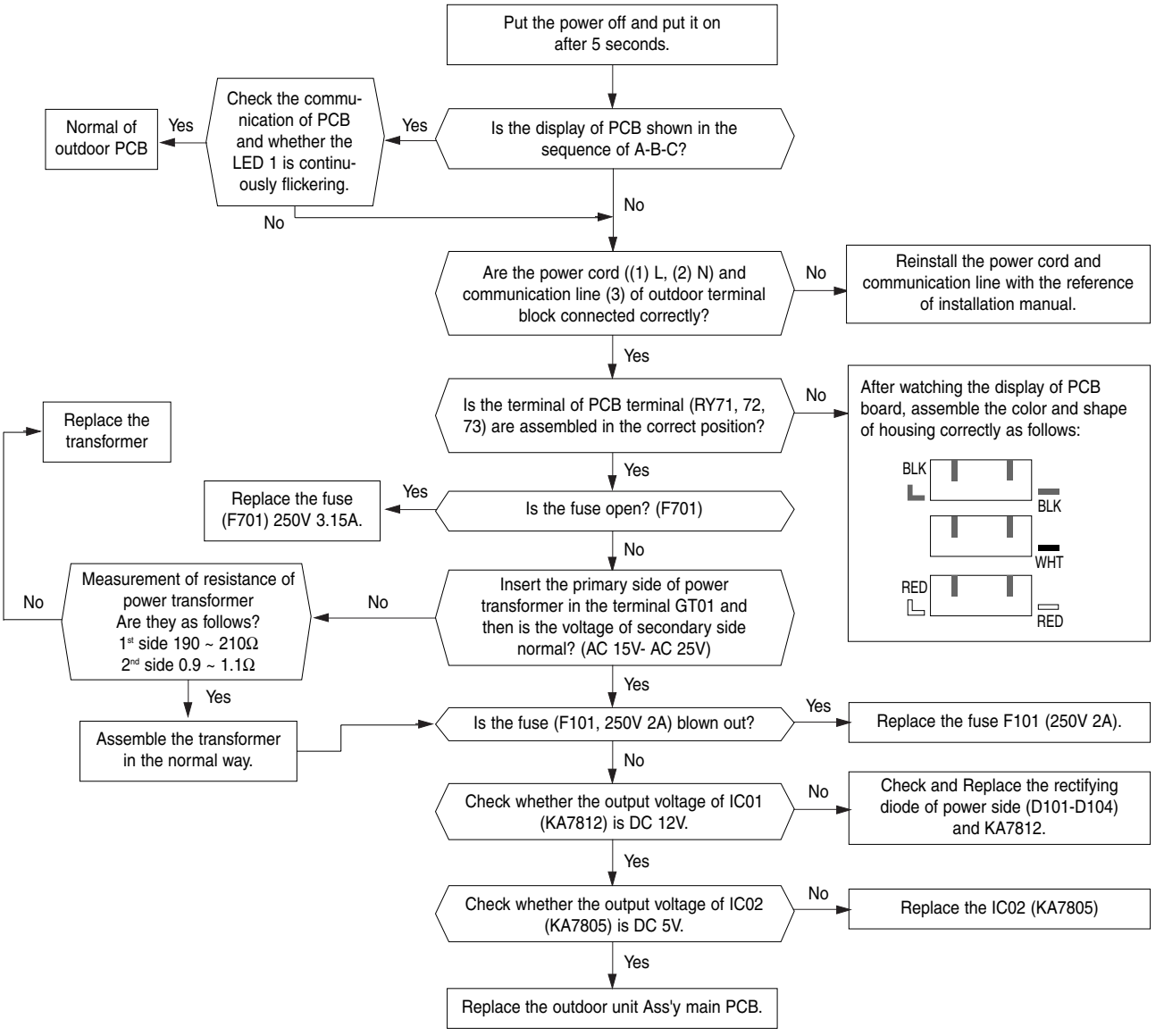
2. Troubleshooting procedure


Apply the power
Is the operation icon( ) lamp flickering with the sound of "ting"?
Yes
Is the operation lamp( ) of indoor unit on when the operation /stop button of remote control is pressed?
Yes
No trouble (normal)
No
Is the outdoor power connected normally?
No
Check of the installation method and electrical circuit
Yes
Is the communication signal of remote control surely sent and received ?
No
Check of remote control
Yes
Is the fuse (F701, 250V, 3.15A) of PCB open?
Yes
Replace the fuse (250V, 3.15A).
Yes
Is there no problem between the connector of Ass'y display PCB and the receiving module?
Yes
Normal
No
Is the output voltage of electrostatic voltage regulator IC (KA7805) DC 4.5V ~ 5.5V?
No
KA7805 is out of order - replace
No
Replace of Ass'y display PCB
Yes
Replace the main PCB of indoor unit

6-3-3 No Power (Outdoor unit)

1. Checklist :
   1) Is the power source normal (The rating Voltage ±10% range)?
   2) Is the outdoor power connected normally? ((1) of terminal : L, (2) of terminal : N, (3) of terminal : communication)?
   3) Check whether the display of outdoor PCB(SEG1) is shown in the order of A-B-C when the power is applied.
      If the display (SEG1) is not shown the inspection and repair shall be performed in the sequence of the following:

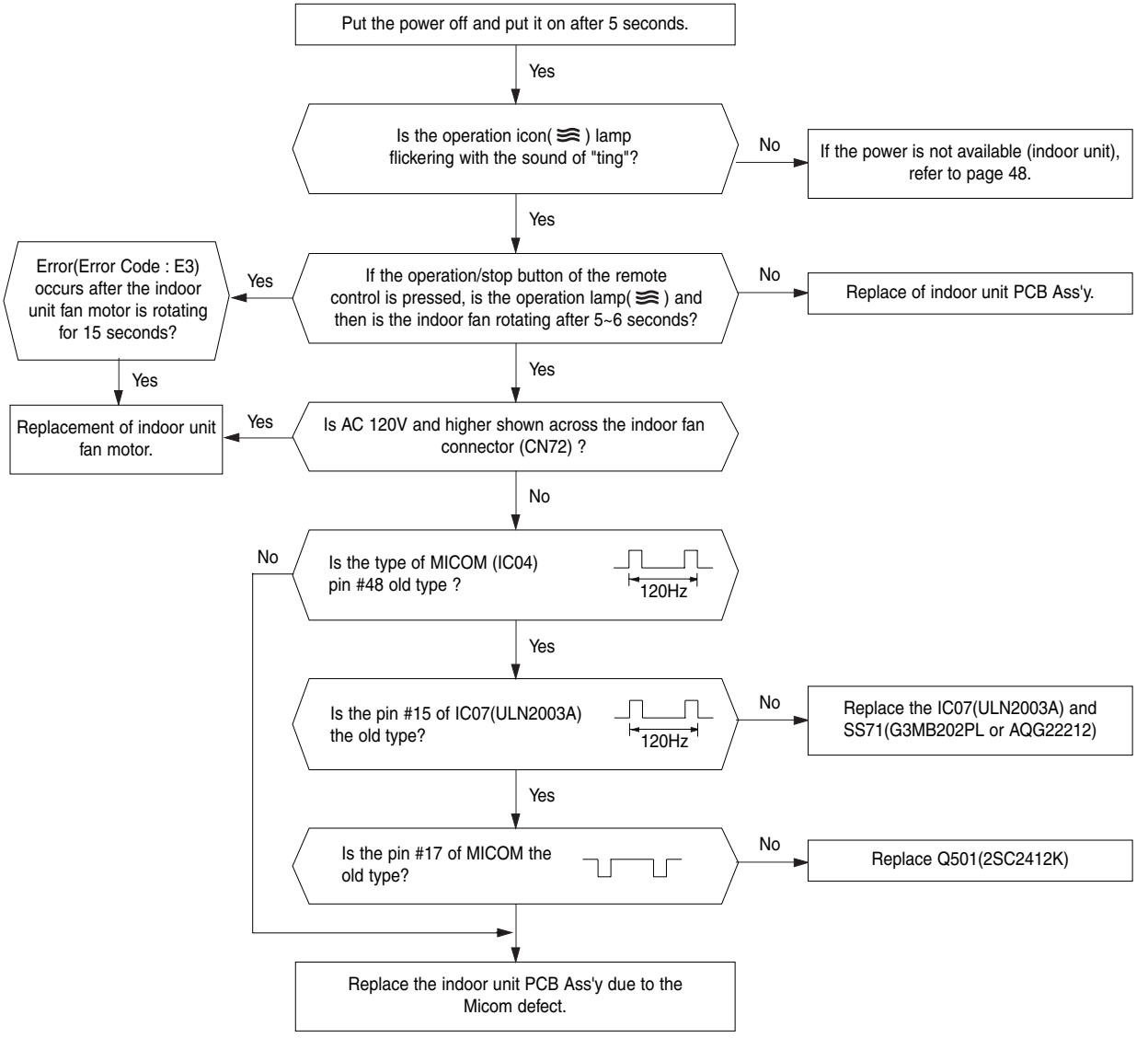
2. Troubleshooting procedure


Put the power off and put it on after 5 seconds.
Is the display of PCB shown in the sequence of A-B-C?
Yes
Check the communication of PCB and whether the LED 1 is continuously flickering.
Yes
Normal of outdoor PCB
No
Are the power cord ((1) L, (2) N) and communication line (3) of outdoor terminal block connected correctly?
No
Reinstall the power cord and communication line with the reference of installation manual.
Yes
Is the terminal of PCB terminal (RY71, 72, 73) are assembled in the correct position?
No
After watching the display of PCB board, assemble the color and shape of housing correctly as follows:
BLK
BLK
WHT
RED
RED
Yes
Is the fuse open? (F701)
Yes
Replace the fuse (F701) 250V 3.15A.
No
Insert the primary side of power transformer in the terminal GT01 and then is the voltage of secondary side normal? (AC 15V- AC 25V)
No
Measurement of resistance of power transformer Are they as follows? 1st side 190 ~ 210Ω 2nd side 0.9 ~ 1.1Ω
No
Replace the transformer
Yes
Assemble the transformer in the normal way.
Yes
Is the fuse (F101, 250V 2A) blown out?
Yes
Replace the fuse F101 (250V 2A).
No
Check whether the output voltage of IC01 (KA7812) is DC 12V.
No
Check and Replace the rectifying diode of power side (D101-D104) and KA7812.
Yes
Check whether the output voltage of IC02 (KA7805) is DC 5V.
No
Replace the IC02 (KA7805)
Yes
Replace the outdoor unit Ass'y main PCB.

6-3-4 When the fan of indoor unit does not operate

1. Checklist :
   1) Is the power voltage normal?
   2) Is the connector of indoor fan with the good contact? (CN72)
   3) Is the soldering status of running condenser (CR71) with the good contact?
   4) Is connector of the Hall IC with the good contact (CN44)?
   5) Is the indoor fan rotating when it is under operation mode?

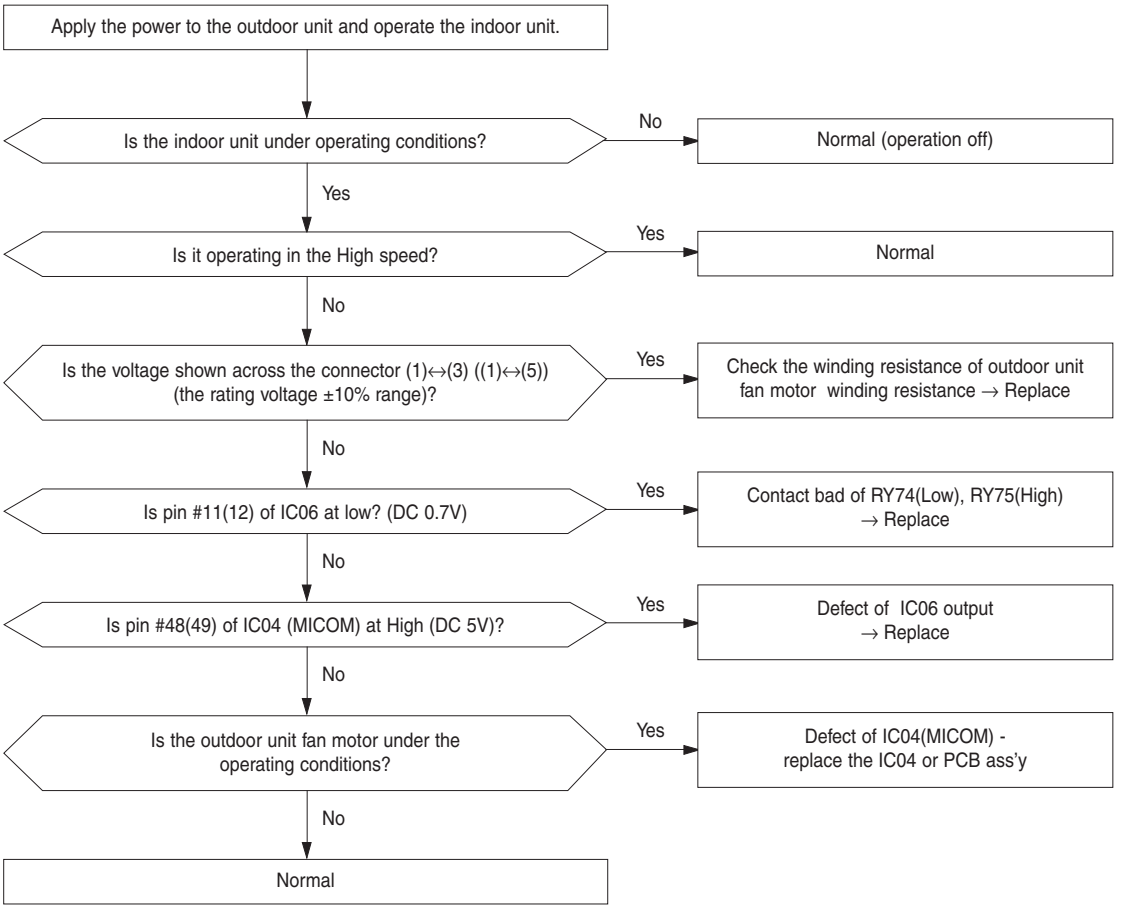
2. Troubleshooting procedure


Put the power off and put it on after 5 seconds.
Yes
Is the operation icon( ) lamp flickering with the sound of "ting"?
No
If the power is not available (indoor unit), refer to page 48.
Yes
Error(Error Code : E3) occurs after the indoor unit fan motor is rotating for 15 seconds?
Yes
If the operation/stop button of the remote control is pressed, is the operation lamp( ) and then is the indoor fan rotating after 5~6 seconds?
No
Replace of indoor unit PCB Ass'y.
Yes
Yes
Replacement of indoor unit fan motor.
Yes
Is AC 120V and higher shown across the indoor fan connector (CN72) ?
No
No
Is the type of MICOM (IC04) pin #48 old type ?
120Hz
Yes
Is the pin #15 of IC07(ULN2003A) the old type?
120Hz
No
Replace the IC07(ULN2003A) and SS71(G3MB202PL or AQG22212)
Yes
Is the pin #17 of MICOM the old type?
No
Replace Q501(2SC2412K)
Replace the indoor unit PCB Ass'y due to the Micom defect.

6-3-5 When the outdoor unit fan does not operate

1. Checklist :
   1) The outdoor unit fan motor operates only when the operating conditions are satisfied and is selected by the RY74(LOW) and RY75(HI) to rotate.
   2) Is the power voltage normal?
   3) Is the contact of outdoor unit fan motor (CN73) good?
   4) Is the winding resistance of outdoor unit fan motor 58Ω at Hi side and 143Ω at low side?
   5) The outdoor unit fan motor operates with Hi at over 28°C and low at below 26°C during the cooling operation, and operates with Hi at below 14°C and low at over 15°C during the heating operation.

2. Troubleshooting procedure

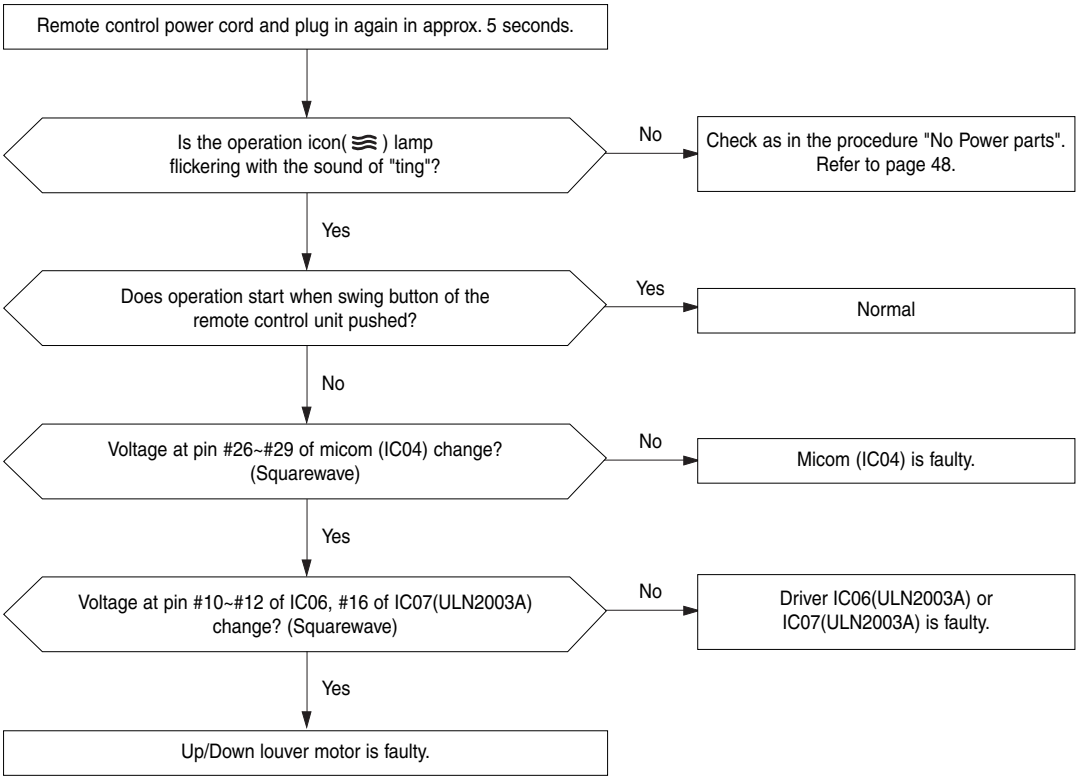

Apply the power to the outdoor unit and operate the indoor unit.
Is the indoor unit under operating conditions?
No
Normal (operation off)
Yes
Is it operating in the High speed?
Yes
Normal
No
Is the voltage shown across the connector (1)↔(3) ((1)↔(5)) (the rating voltage ±10% range)?
Yes
Check the winding resistance of outdoor unit fan motor winding resistance → Replace
No
Is pin #11(12) of IC06 at low? (DC 0.7V)
Yes
Contact bad of RY74(Low), RY75(High) → Replace
No
Is pin #48(49) of IC04 (MICOM) at High (DC 5V)?
Yes
Defect of IC06 output → Replace
No
Is the outdoor unit fan motor under the operating conditions?
Yes
Defect of IC04(MICOM) - replace the IC04 or PCB ass'y
No
Normal

✳ Operating specification of the FAN of outdoor unit
   (1) When the Comp. is under the Comp. ON condition during the cooling and heating operation, Hi or LOW operation is selected according to the temperature condition of outdoor room.
   (2) When A room and B room are mixed to operate , it is always under low operation.
   (3) Perform the Comp. ON/OFF control in the dry mode.
   (4) When it is under the operation of anti-freezing, overload protection, defrost operation, it may be Low, high or Off.
   (5) Hi = High speed, Low = Low speed

6-3-6 When the up/down louver motor does not operate. (Initial Diagnosis)

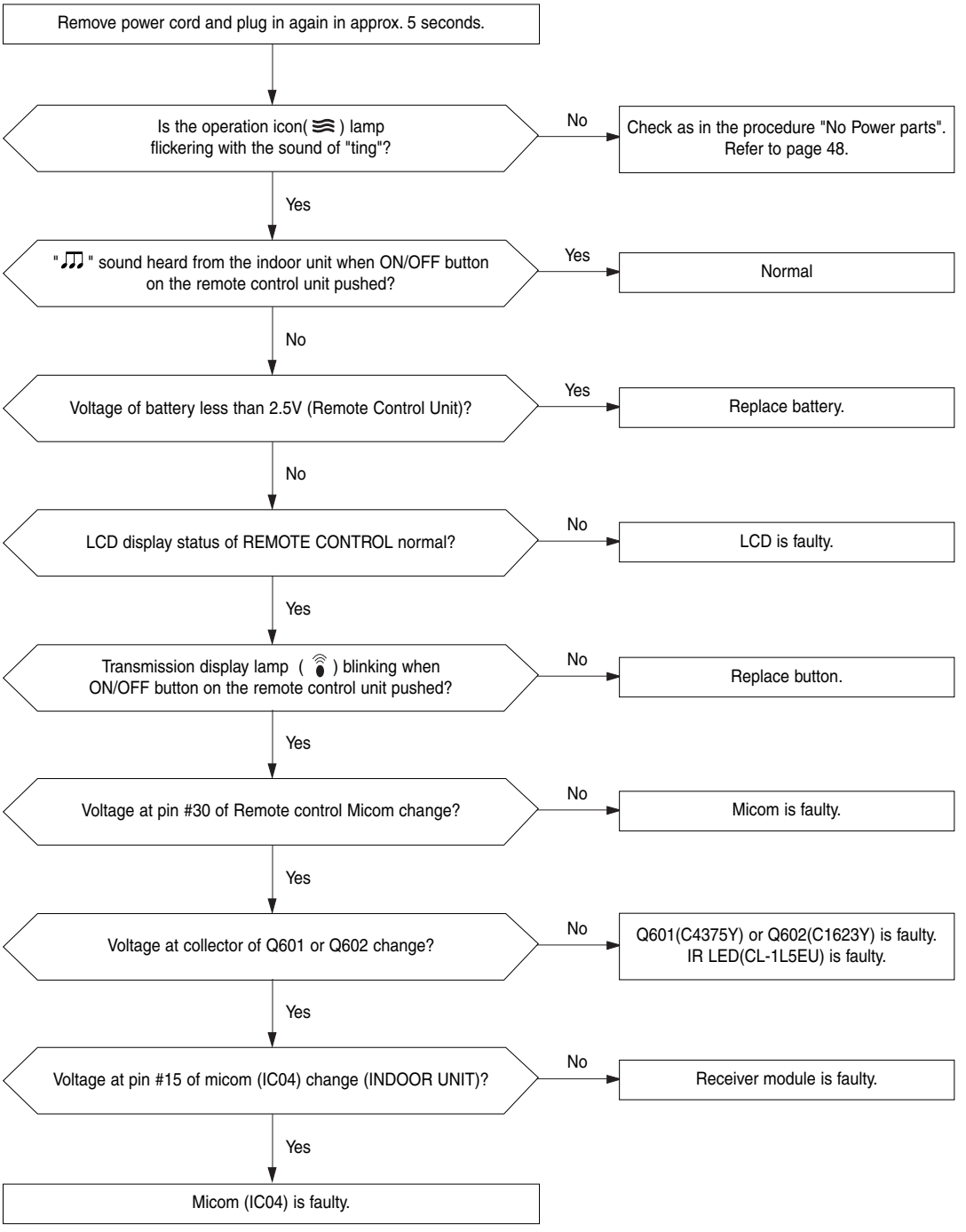
1. Checklist :
   1) Is input voltage normal?
   2) Is the UP/DOWN louver motor properly connected with the connector (CN61)?

2. Troubleshooting procedure


Remote control power cord and plug in again in approx. 5 seconds.
Is the operation icon( ) lamp flickering with the sound of "ting"?
No
Check as in the procedure "No Power parts". Refer to page 48.
Yes
Does operation start when swing button of the remote control unit pushed?
Yes
Normal
No
Voltage at pin #26~#29 of micom (IC04) change? (Squarewave)
No
Micom (IC04) is faulty.
Yes
Voltage at pin #10~#12 of IC06, #16 of IC07(ULN2003A) change? (Squarewave)
No
Driver IC06(ULN2003A) or IC07(ULN2003A) is faulty.
Yes
Up/Down louver motor is faulty.

6-3-7 If Operation by remote control unit is impossible. (Initial Diagnosis)

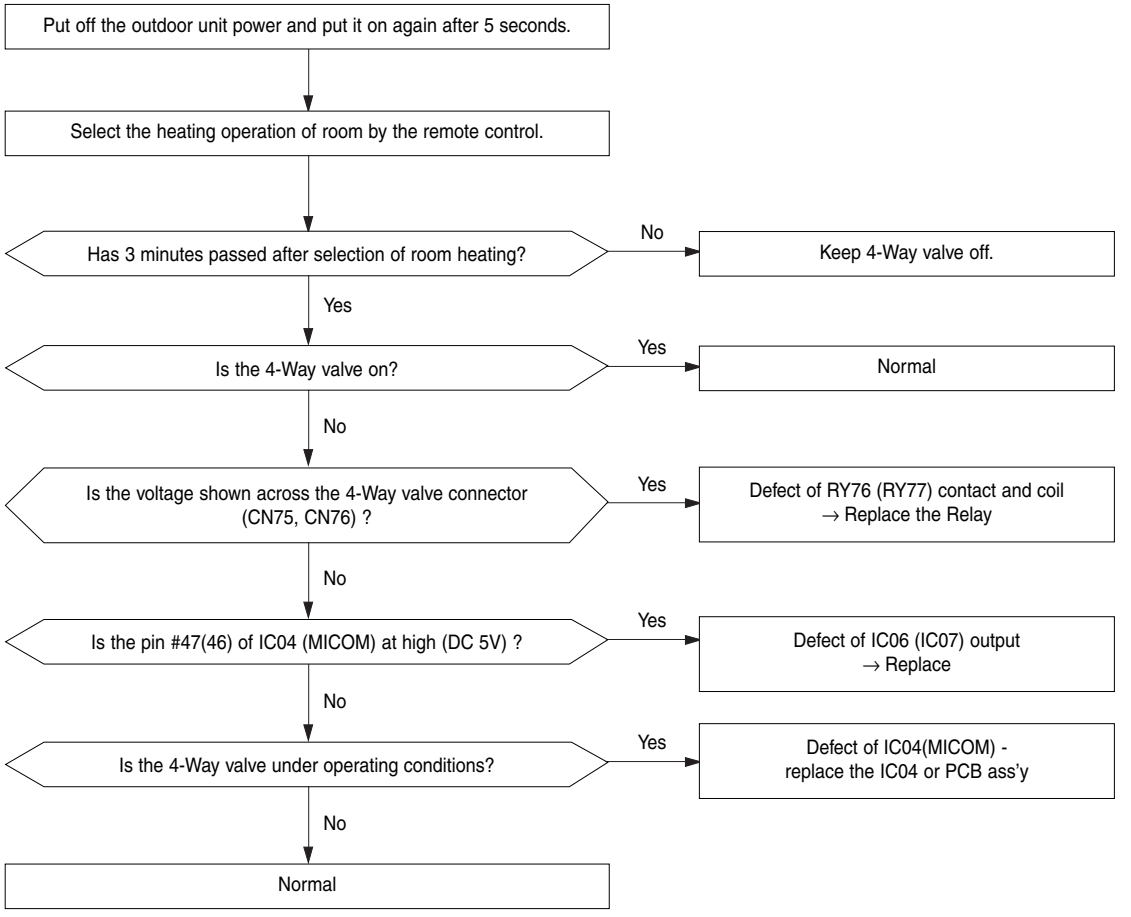
1. Troubleshooting procedure


Remove power cord and plug in again in approx. 5 seconds.
Is the operation icon( ) lamp flickering with the sound of "ting"?
No
Check as in the procedure "No Power parts". Refer to page 48.
Yes
" " sound heard from the indoor unit when ON/OFF button on the remote control unit pushed?
Yes
Normal
No
Voltage of battery less than 2.5V (Remote Control Unit)?
Yes
Replace battery.
No
LCD display status of REMOTE CONTROL normal?
No
LCD is faulty.
Yes
Transmission display lamp ( ) blinking when ON/OFF button on the remote control unit pushed?
No
Replace button.
Yes
Voltage at pin #30 of Remote control Micom change?
No
Micom is faulty.
Yes
Voltage at collector of Q601 or Q602 change?
No
Q601(C4375Y) or Q602(C1623Y) is faulty.
IR LED(CL-1L5EU) is faulty.
Yes
Voltage at pin #15 of micom (IC04) change (INDOOR UNIT)?
No
Receiver module is faulty.
Yes
Micom (IC04) is faulty.

6-3-8 When the 4-Way valve is not operating

1. Checklist :
   1) Are the 4-Way valve under the operating conditions?
      When the Comp. is on during the heating operating.
   2) Is the power voltage normal?
   3) Is the connecting of 4-Way valve good?

2. Troubleshooting procedure

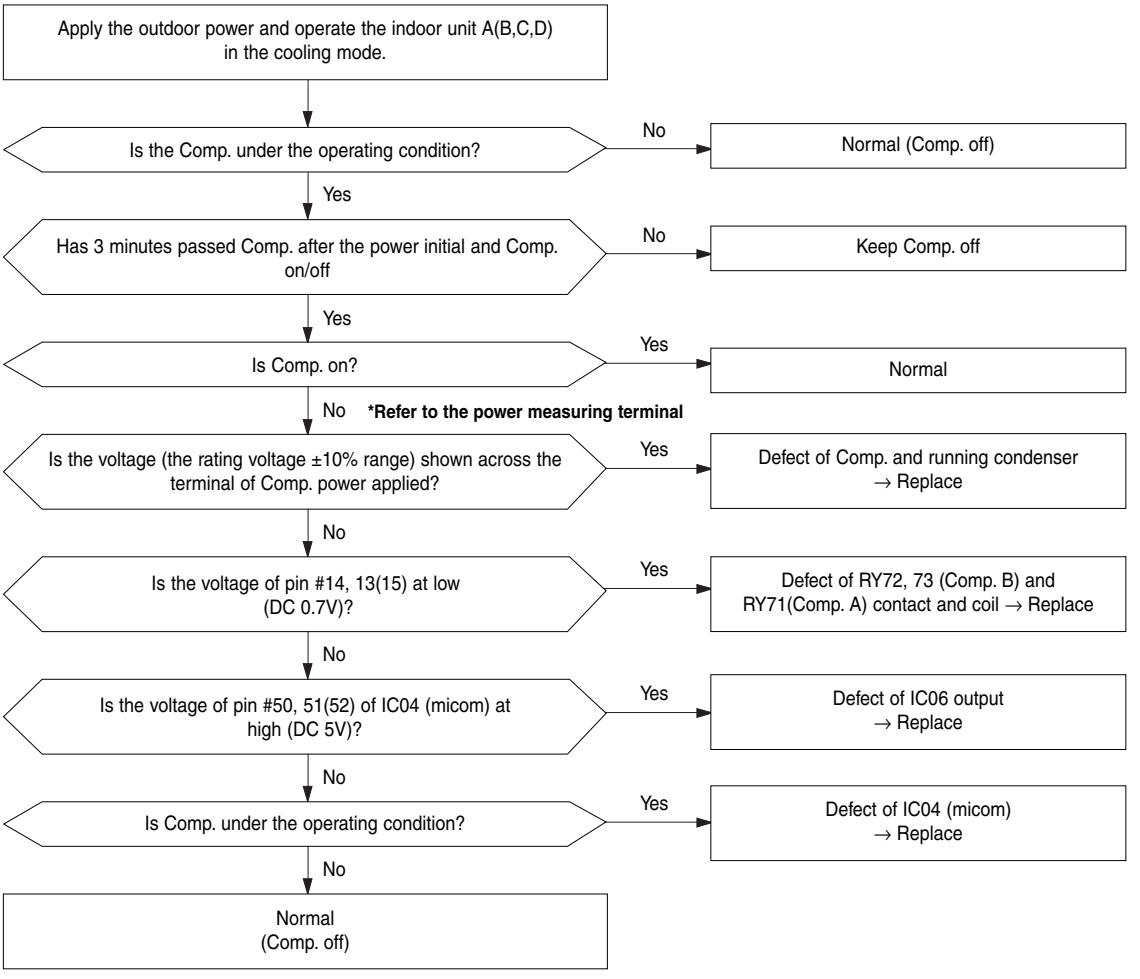

Put off the outdoor unit power and put it on again after 5 seconds.
Select the heating operation of room by the remote control.
Has 3 minutes passed after selection of room heating?
No
Keep 4-Way valve off.
Yes
Is the 4-Way valve on?
Yes
Normal
No
Is the voltage shown across the 4-Way valve connector (CN75, CN76) ?
Yes
Defect of RY76 (RY77) contact and coil → Replace the Relay
No
Is the pin #47(46) of IC04 (MICOM) at high (DC 5V) ?
Yes
Defect of IC06 (IC07) output → Replace
No
Is the 4-Way valve under operating conditions?
Yes
Defect of IC04(MICOM) - replace the IC04 or PCB ass'y
No
Normal

✳ 4-Way valve operating conditions
(1) During the defrost control, put the 4-Way valve off.
(2) During the heating operation put the 4-Way valve on.
(3) The changeover of heating to cooling : put the 4-Way valve off immediately (in case of B and C room).
(4) The changeover of cooling to heating : it is on after 170 seconds delay.

6-3-9 When the compressor does not operate

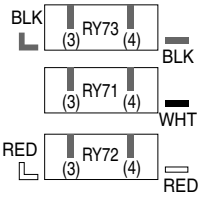
1. Checklist :
   1) Is the Comp. under the operating conditions? (cooling operating of A, B(C) room)
   2) Is the power voltage normal? (the rating voltage ±10% range)
   3) Is the connector connection of Comp. good?
   4) The Comp. is operated on and off in accordance with the operating conditions of indoor unit of A(B, C) room.

2. Troubleshooting procedure


Apply the outdoor power and operate the indoor unit A(B,C,D) in the cooling mode.
Is the Comp. under the operating condition?
No
Normal (Comp. off)
Yes
Has 3 minutes passed Comp. after the power initial and Comp. on/off
No
Keep Comp. off
Yes
Is Comp. on?
Yes
Normal
No
*Refer to the power measuring terminal
Is the voltage (the rating voltage ±10% range) shown across the terminal of Comp. power applied?
Yes
Defect of Comp. and running condenser → Replace
No
Is the voltage of pin #14, 13(15) at low (DC 0.7V)?
Yes
Defect of RY72, 73 (Comp. B) and RY71(Comp. A) contact and coil → Replace
No
Is the voltage of pin #50, 51(52) of IC04 (micom) at high (DC 5V)?
Yes
Defect of IC06 output → Replace
No
Is Comp. under the operating condition?
Yes
Defect of IC04 (micom) → Replace
No
Normal (Comp. off)

✳ Comp. A (B) operating conditions
   (1) Comp. A : Comp. on /off control in accordance with the A room during the heating and cooling indoor unit operation
   (2) Comp. B : Comp. on /off control in accordance with the B(C) room during the heating and cooling indoor unit operation

✳ Comp. A(B) power measuring terminal
   (1) Comp. A measuring ; RY73 (4) ↔ RY72 (4)
   (2) Comp. B measuring ; RY71 (4) ↔ RY72 (4)
   (3) Power input ; RY72 (3) ↔ RY73(3)



6-4 PCB Inspection

6-4-1 Cautions for Part Replacement

1. The human body carries much static electricity. Before touching a part for repair, replacement or the similar purpose, be sure to touch a grounded metallic portion by hand to let the static electricity go through the metallic portion to the earth.
   Especially when handling any micro computer or IC, carefully remove such static electricity before touching them.

2. When repairing any part on a work bench, be sure to place an insulative sheet on the bench and always keep the sheet surface neat without any metal fragments.
   If any such fragment touches a part, a secondary trouble will possibly be caused in the part.

3. Before replacing any parts, be sure to turn off the power supply. If such replacement is done with the power supply kept on, an electric shock, short circuit or destruction of a part may result.

4. During replacement or repair of a part, carefully handle it : The printed circuit board has fine lead wires (jumper wires) and glass-made parts (diode) on its substrate.
   So if a circuit board is roughly handled, such lead wires and parts will be easily broken or damaged by bending or shock.
5. When soldering the lead wires of any new part, be sure to polish them using an emery paper or the like before soldering them.
   Since the lead wires of any new part are covered with an oxide film, solder cannot adhere to the lead wires if not polished.

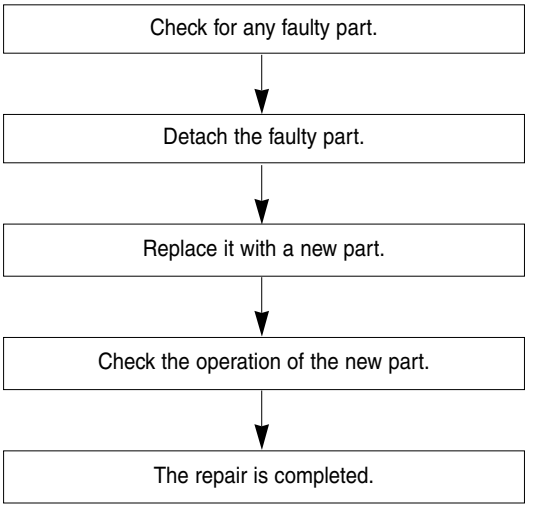
6. When soldering any part, care should be exercised not to apply any high-wattage soldering iron to the part for a long time. Some parts are of so low a heat resistance that they may be broken or have the properties changed if a soldering iron is so applied (Otherwise, the pattern may possibly be separated and raised).

7. The heat of the soldering iron should be transferred to the entire object to be soldered. If the solder pieces are not well fused due to insufficient transfer of the heat from the soldering iron, no satisfactory electrical continuity can be assured even if the soldered objects appear well connected to each other.

8. The solder used should be limited to a minimum.
   If excessive solder is used, it will cause inter-pattern contact, which may cause malfunction of the circuit.

6-4-2 Procedure

The parts should be replaced in the following procedure.


Check for any faulty part.
Detach the faulty part.
Replace it with a new part.
Check the operation of the new part.
The repair is completed.

6-4-3 Detailed Inspection Procedure

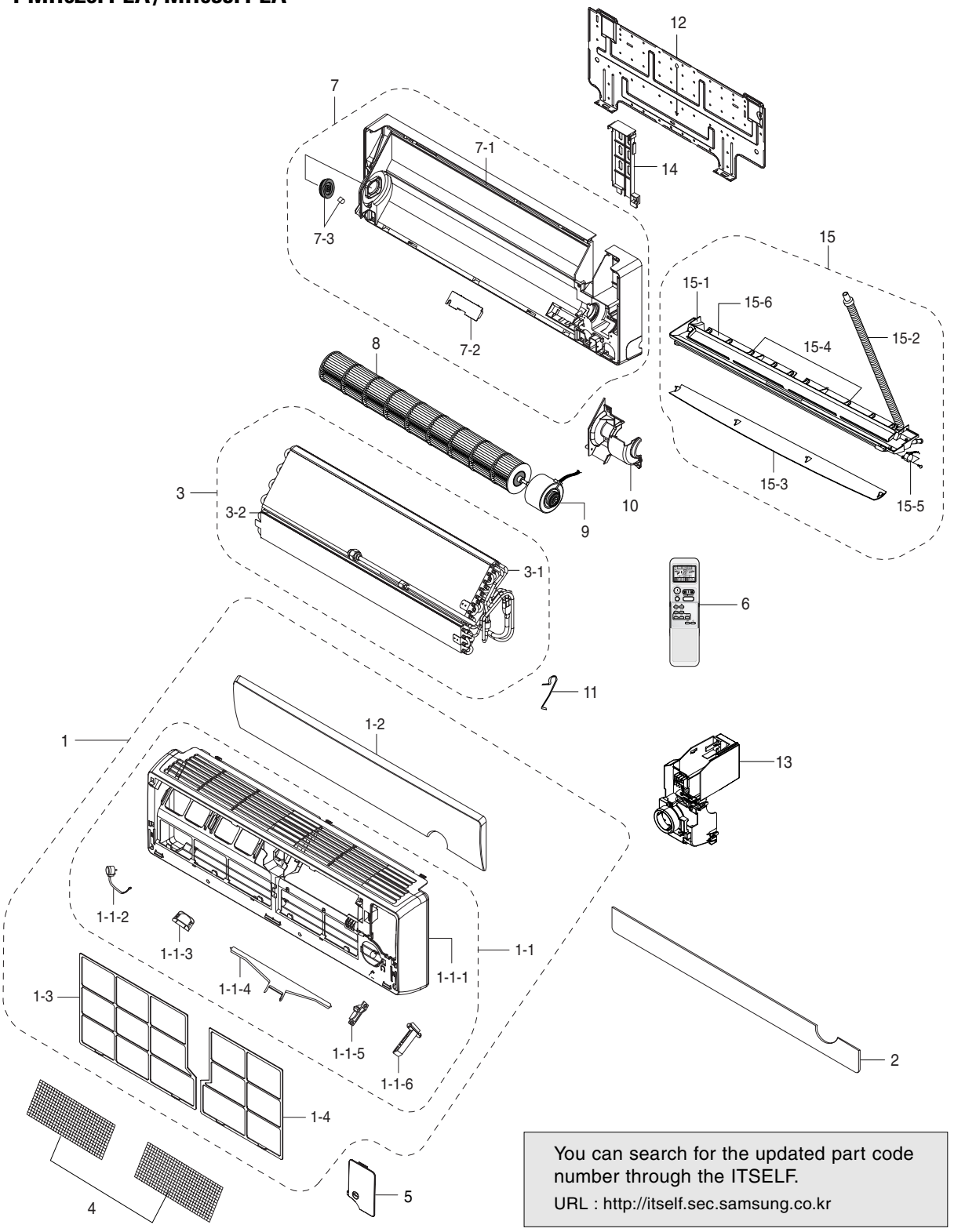
No	Procedure	Inspection Method	Cause
1	Pull out the power plug from the AC terminal and confirm the fuse on the PCB assembly.	1) Is the broken?	• Voltage over • Indoor unit fan motor short-circuit.
2	Turn the power on. If lamp blinks trouble is not related to the items 1 through 4 on the right.	Voltage check	
		1) AC voltage at both end of transformer Primary? the rating voltage ±10% range	• Irregular power code or power fuse, or poor wiring.
		2) AC voltage at both end of transformer secondary? 14~18Vac	• Transformer is faulty.
		3) DC voltage at OUT and GND of IC01 (KA7812)? 12VDC	• Power circuit is faulty.
		4) DC voltage at OUT and GND of IC02? 5VDC	• Power circuit is faulty.
		5) DC voltage at Q201 Base and GND change? squarewave	• Q201 is faulty. D101~D104 (IN4007)
3	Set TURBO operating mode when RMC switch pushed after a delay of 3 minutes (A-unit and B-unit)	Voltage check	
		1) Voltage of relay (RY71, 72, 73) coil Voltage at pin #13, 14, 15 of IC07 : 12VDC	• Relay(RY71) coil is open. IC6(KID65003A) is faulty.
		2) Voltage at RY72 No ③ and RY71 No ③, RY72 No ③ and RY73 No ③, the rating voltage ±10% range	• Relay contactor is faulty or Relay is faulty
4	Set operating mode when RMC switch pushed. 1. TURBO mode	1) Compressor does not operate.	• Temperature of Heat exchange is lower. • PCB is faulty. • Room sensor or Heat exchanger temperature sensor is faulty
5	Set operating mode when RMC switch pushed. 1. [FAN] mode 2. Fan speed [Hi] 3. Continuously operation	1) Voltage at ③ ⑤ both ends of CN72 : above 180V~	• Indoor unit fan motor is faulty.
		2) Indoor unit fan motor does not operate.	• Poor connection of indoor fan motor and connector of RPM sensing (CN44)

MEMO

7. Exploded Views and Parts List

7-1 Indoor Unit

7-1-1 MH026FPEA/MH035FPEA

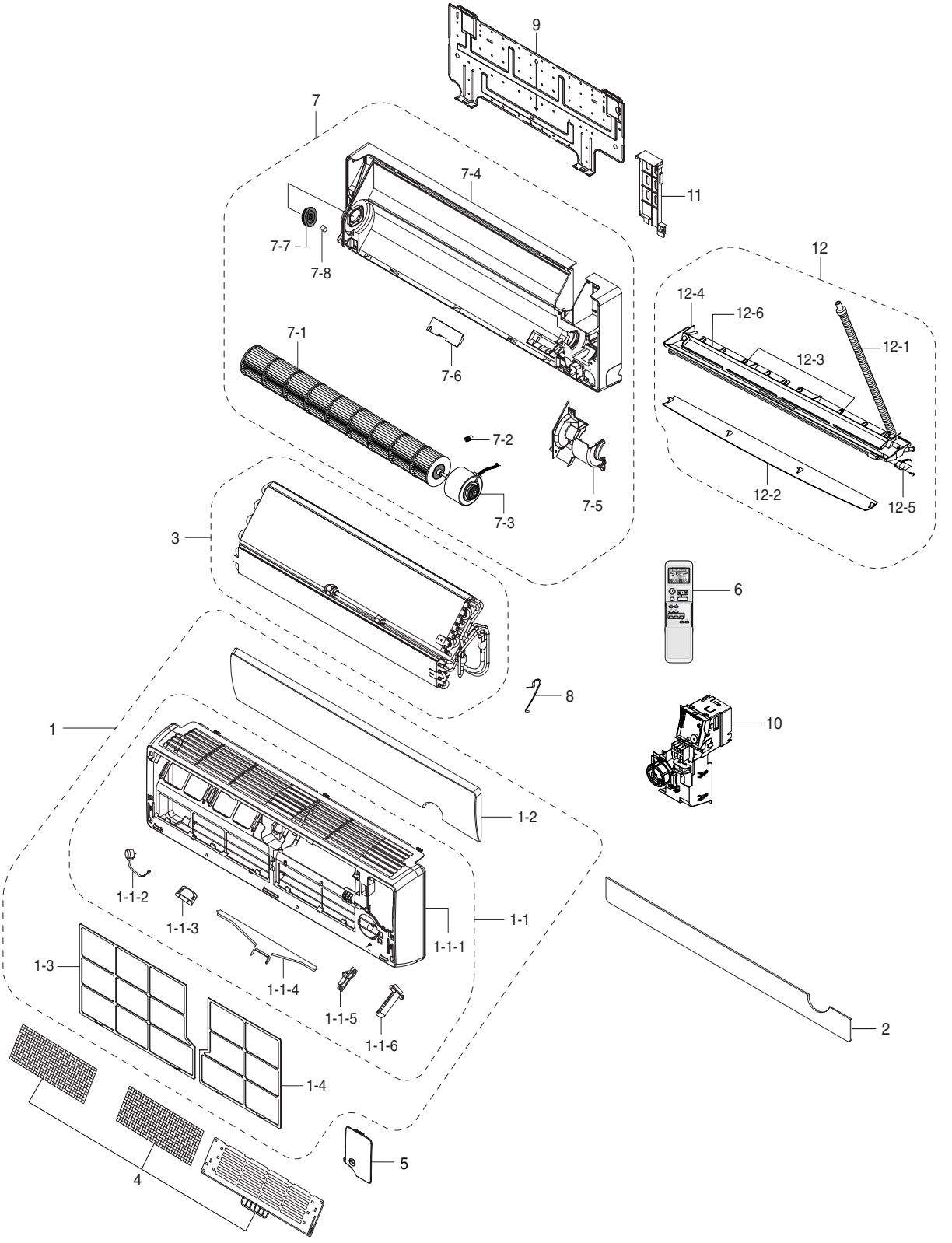


You can search for the updated part code number through the ITSELF.
URL : http://itself.sec.samsung.co.kr

■ **Parts List**

No.	Code No.	Description	Specification	Q'TY		Remark
				MH026FPEA	MH035FPEA	
1	DB92-00561A	ASS'Y PANEL FRONT TOTAL	ASS'Y	-	1	
	DB92-00558A	ASS'Y PANEL FRONT TOTAL	ASS'Y	1	-	
1-1	DB92-00560A	ASS'Y PANEL FRONT SUB-P	ASS'Y	-	1	
	DB92-00557A	ASS'Y PANEL FRONT SUB-P	ASS'Y	1	-	
1-1-1	DB92-00559A	ASS'Y PANEL FRONT SUB	ASS'Y	-	1	
	DB92-00556A	ASS'Y PANEL FRONT SUB	ASS'Y	1	-	
1-1-2	DB31-00166B	MOTOR STEP	-	1	1	
1-1-3	DB61-01114A	HOLDER MOTOR DC	HIPS	-	1	
	DB61-01123A	HOLDER MOTOR DC	HIPS	1	-	
1-1-4	DB61-01115A	HINGE GRILLE	HIPS	-	1	
	DB61-01132A	HINGE GRILLE	HIPS	1	-	
1-1-5	DB61-01116A	GUIDE LINK	HIPS	-	1	
	DB61-01133A	GUIDE LINK	HIPS	1	-	
1-1-6	DB66-00364A	LINK MOTOR	ABS	-	1	
	DB66-00365A	LINK MOTOR	ABS	1	-	
1-2	DB64-00640A	GRILLE UP	ABS	-	1	
	DB64-00655A	GRILLE UP	ABS	1	-	
1-3	DB63-00585B	FILTER-PRE LF	PP	-	1	
	DB63-00590B	FILTER-PRE LF	PP	1	-	
1-4	DB63-00586B	FILTER-PRE RH	PP	-	1	
	DB63-00591B	FILTER-PRE RH	PP	1	-	
2	DB92-00540A	ASS'Y GRILLE LOW	ASS'Y	-	1	
	DB92-00538A	ASS'Y GRILLE LOW	ASS'Y	1	-	
3	DB96-03801A	ASS'Y EVAPORATOR TOTAL	ASS'Y	-	1	
	DB96-03796A	ASS'Y EVAPORATOR TOTAL	ASS'Y	1	-	
3-1	DB96-03800A	ASS'Y EVAPORATOR	ASS'Y	-	1	
	DB96-03797A	ASS'Y EVAPORATOR	ASS'Y	1	-	
3-2	DB67-00051A	SPACE-EVAP LOW	PVC	1	-	
4	DB95-00367E	ASS'Y FILTER BIO	ASS'Y	1	1	
5	DB63-00581A	COVER TERMINAL	HIPS	-	1	
	DB63-00588A	COVER TERMINAL	HIPS	1	-	
6	DB93-02531P	ASS'Y REMOCON	ASS'Y	1	1	
7	DB94-00488A	ASS'Y BACK BODY	ASS'Y	-	1	
	DB94-00486A	ASS'Y BACK BODY	ASS'Y	1	-	
7-1	DB61-01098A	BACK BODY	HIPS	-	1	
	DB61-01119A	BACK BODY	HIPS	1	-	
7-2	DB63-00580A	COVER-IONIZER	HIPS	1	1	
7-3	DB94-00258A	ASS'Y BEARING	ASS'Y	1	1	
8	DB94-00040R	ASS'Y CROSS FAN	ASS'Y	-	1	
	DB94-00040F	ASS'Y CROSS FAN	ASS'Y	1	-	
9	DB31-00152B	MOTOR-FAN IN	-	-	1	
	DB31-00152A	MOTOR-FAN IN	-	1	-	
10	DB61-01099A	HOLDER-MOTOR	PP	-	1	
	DB61-01120A	HOLDER-MOTOR	PP	1	-	
11	DB67-60030A	SPRING-SENSOR	STS301	1	1	
12	DB70-00276A	PLATE-HANGER	SGCC-M	-	1	
	DB70-00288A	PLATE-HANGER	SGCC-M	1	-	
13	DB93-02885A	ASS'Y CONTROL IN	ASS'Y	-	1	
	DB93-02884A	ASS'Y CONTROL IN	ASS'Y	1	-	
14	DB90-00992A	HOLDER-PIPE	HIPS	-	1	
	DB61-01121A	HOLDER-PIPE	HIPS	1	-	
15	DB94-00468B	ASS'Y TRAY DRAIN	ASS'Y	-	1	
	DB94-00465A	ASS'Y TRAY DRAIN	ASS'Y	1	-	
15-1	DB63-00587A	TRAY DRAIN	HIPS	-	1	
	DB63-00592A	TRAY DRAIN	HIPS	1	-	
15-2	DB94-00062E	ASS'Y DRAIN HOSE	ASS'Y	1	1	
15-3	DB61-01103A	BLADE-H	HIPS	-	1	
	DB61-01125A	BLADE-H	HIPS	1	-	
15-4	DB61-01104A	BLADE-V	PP	-	3	
	DB61-01126A	BLADE-V	PP	3	-	
15-5	DB95-20138A	ASS'Y MOTOR-STEPPING	ASS'Y	1	1	
15-6	DB63-00634A	GUARD-SAFETY WIRE	STS27	-	1	OPTION
	DB63-00635A	GUARD-SAFETY WIRE	STS27	1	-	

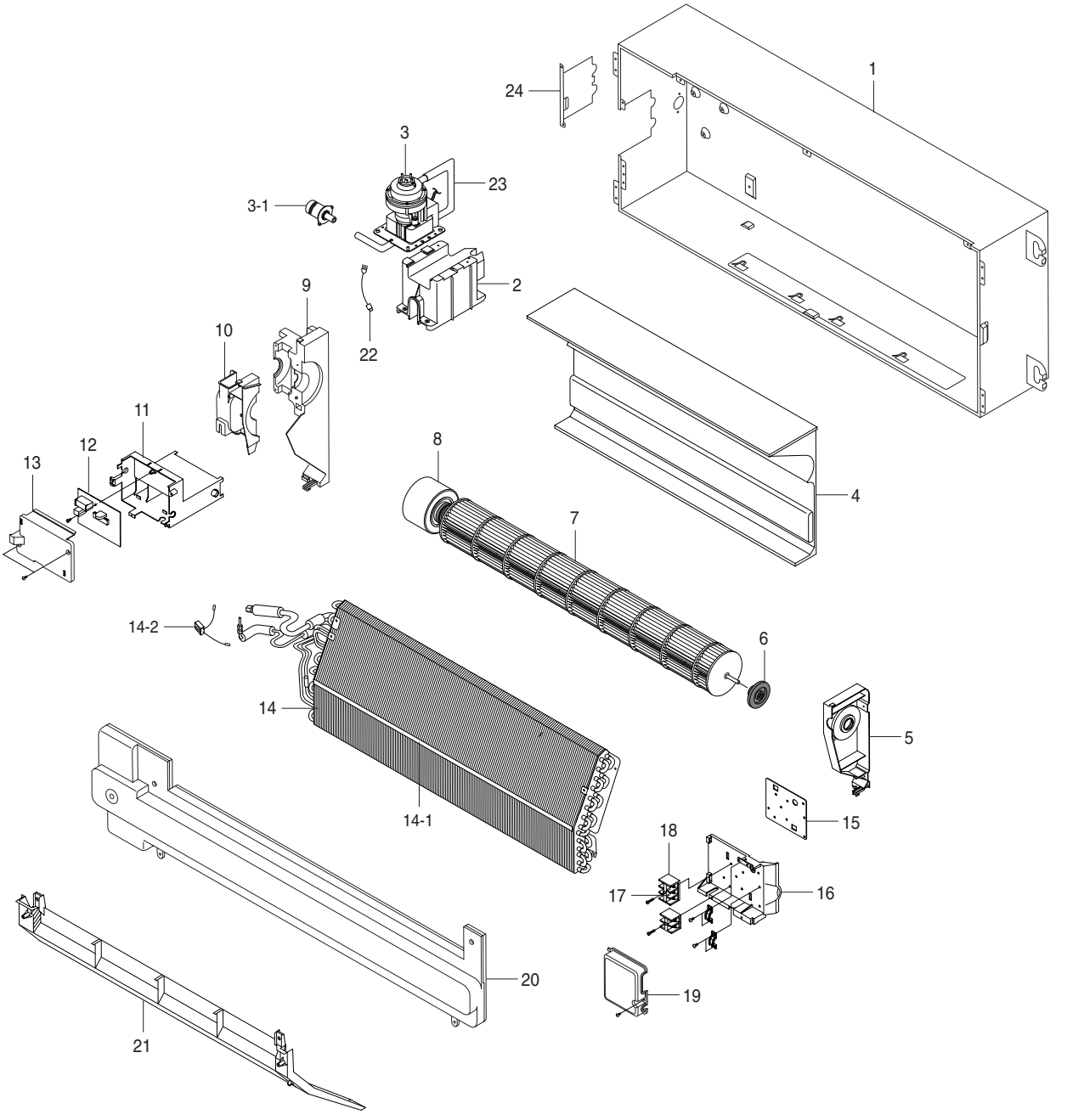
7-1-2 MH052FPEA



■ **Parts List**

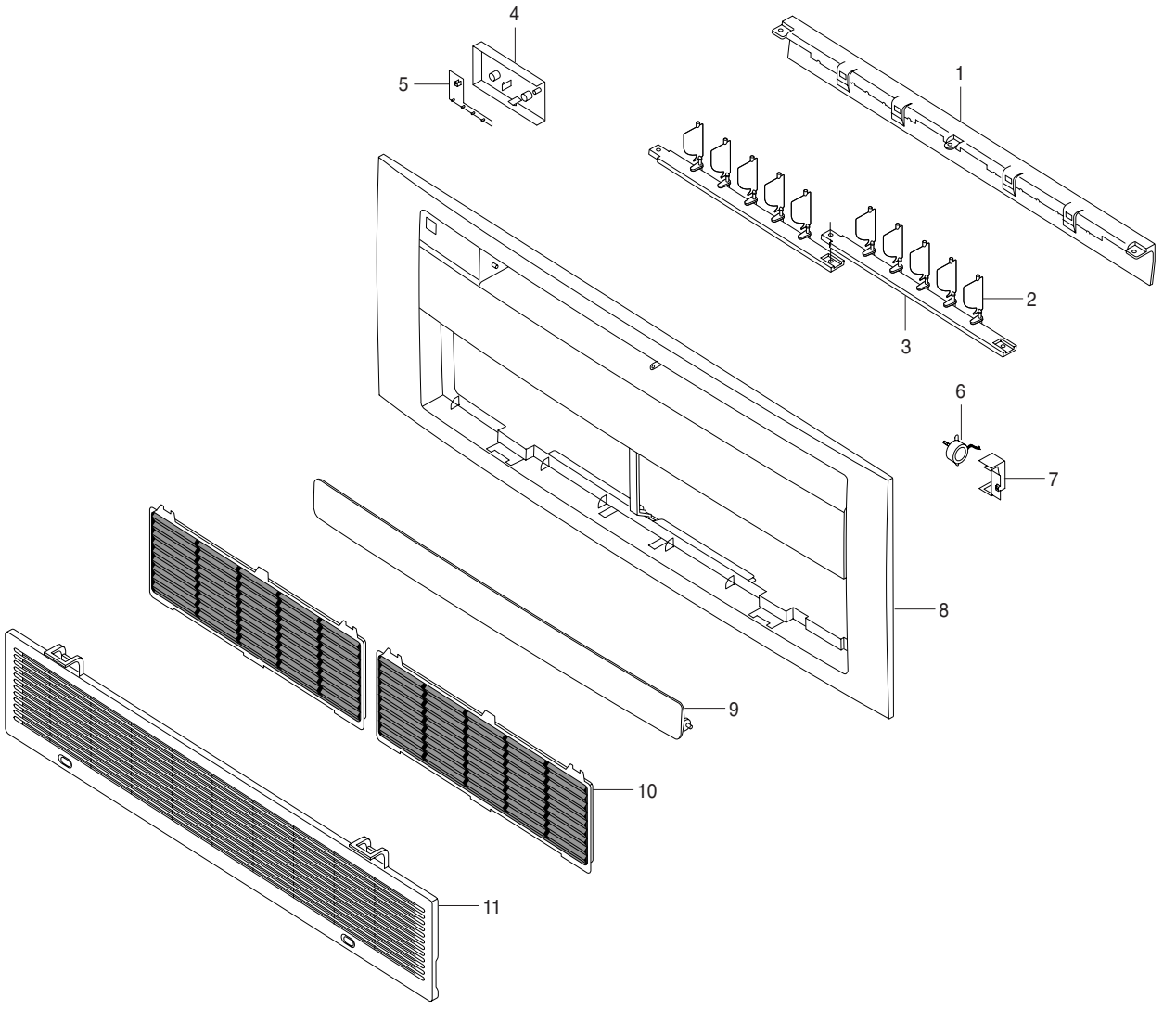
No.	Code No.	Description	Specification	Q'TY	Remark
				MH052FPEA	
1	DB92-00447C	ASS'Y PANEL FRONT-TOTAL	ASS'Y	1	
1-1	DB92-00471A	ASS'Y PANEL FRONT-SUB	ASS'Y	1	
1-1-1	DB92-00386A	ASS'Y PANEL FRONT	ASS'Y	1	
1-1-2	DB31-00195B	MOTOR STEPPING	-	1	
1-1-3	DB61-01114A	HOLDER MOTOR DC	HIPS	1	
1-1-4	DB61-01144A	HINGE GRILLE	HIPS	1	
1-1-5	DB61-01116A	GUIDE LINK	HIPS	1	
1-1-6	DB66-00366A	LINK MOTOR	ABS	1	
1-2	DB64-00670A	GRILLE UP	HIPS	1	
1-3	DB63-00596B	FILTER-LF	PP	1	
1-4	DB63-00597B	FILTER-RH	PP	1	
2	DB92-00449D	ASS'Y GRILLE LOW SUB	ASS'Y	1	
3	DB96-03798A	ASS'Y EVAP-TOTAL	ASS'Y	1	
4	DB95-00367F	ASS'Y FILTER BIO	ASS'Y	1	
5	DB63-00594A	COVER TERMINAL	HIPS	1	
6	DB93-02531P	ASS'Y REMOCON	ASS'Y	1	
7	DB94-00531A	ASS'Y BACK BODY	ASS'Y	1	
7-1	DB94-00040J	ASS'Y CROSS FAN	ASS'Y	1	
7-2	DB60-20011A	BOLT SPECIAL	M6	1	
7-3	DB31-10151C	MOTOR-FAN IN	-	1	
7-4	DB61-01135A	BACK BODY	HIPS	1	
7-5	DB61-01136A	HOLDER-MOTOR	PP	1	
7-6	DB63-00580A	COVER-IONIZER	HIPS	1	
7-7	DB73-00128A	RUBBER BEARING	-	1	
7-8	DB94-40007A	BEARING MOTOR	-	1	
8	DB67-60030A	SPRING SENSOR	-	1	
9	DB70-00295A	PLATE-HANGER	SGCC-M	1	
10	DB93-02744A	ASS'Y CONTROL IN	ASS'Y	1	
11	DB61-01137A	HOLDER-PIPE	HIPS	1	
12	DB94-00300C	ASS'Y TRAY DRAIN	ASS'Y	1	
12-1	DB94-00062B	ASS'Y DRAIN HOSE	ASS'Y	1	
12-2	DB61-01141A	BLADE-H	ABS	1	
12-3	DB61-01142A	BLADE-V	PP	1	
12-4	DB63-00598A	TRAY DRAIN	ABS	1	
12-5	DB31-10154A	MOTOR-STEPPING BLADE	-	1	
12-6	DB63-00699A	GUARD-SAFETY WIRE	-	1	

7-1-3 MH026FKEA / MH035FKEA



■ **Parts List**

No.	Code No.	Description	Specification	Q'TY		Remark
				MH026FKEA	MH035FKEA	
1	DB90-00588E	ASS'Y CABI IN	ASS'Y	1	1	
2	DB61-00364A	HOLDER DRAIN PUMP	Fire-Resistant P.S(V0)	1	1	
3	DB67-00114A	DRAIN PUMP	SAUERMANN	1	1	
3-1	DB67-00285A	DRAIN HOSE-SOCKET	POM	1	1	
4	DB69-00298A	CUSHION BODY	EPS	1	1	
5	DB61-00363A	CASE-FAN SIDE	Fire-Resistant P.S(V0)	1	1	
6	DB94-00066A	ASS'Y BEARING	ASS'Y	1	1	
7	DB94-00040K	ASS'Y CROSS FAN	ASS'Y	1	1	
8	DB31-10078M	MOTOR FAN	PFS040WTVE	1	1	
9	DB61-00354A	HOUSING MOTOR	Fire-Resistant P.S(V0)	1	1	
10	DB63-00165A	COVER FAN MOTOR	Fire-Resistant P.S(V0)	1	1	
11	DB61-00362A	CASE CONTROL	Fire-Resistant P.S(V0)	1	1	
12	DB93-02335D	ASS'Y PCB MAIN-IN	ASS'Y	1	1	
13	DB63-00167A	COVER CONTROL	ASS'Y	1	1	
14	DB98-20268A	ASS'Y EVAP	ASS'Y	1	1	
14-1	DB60-00057A	SPACER EVAP	ABS	1	1	
14-2	DB32-00035B	THERMISTOR-ASS'Y	103AT	1	1	
15	DB61-00365A	BRACKET TERMINAL	SGCC-M	1	1	
16	DB61-00394A	BASE TERMINAL	ABS	1	1	
17	DB65-00004B	TERMINAL BLOCK	DAF 2P	1	1	
18	DB65-00004C	TERMINAL BLOCK	DAF 4P	1	1	
19	DB63-00168A	COVER TERMINAL	Fire-Resistant P.S(V0)	1	1	
20	DB94-00084A	ASS'Y DRAIN	ASS'Y	1	1	
21	DB94-00290A	ASS'Y DRAIN PAN SUB	ASS'Y	1	1	
22	DB95-00131A	ASS'Y SENSOR FLOAT	ASS'Y	1	1	
23	DB62-02199A	VALVE CHECK	ASS'Y	1	1	
24	DB90-00589A	ASS'Y CABI-SIDE LF	ASS'Y	1	1	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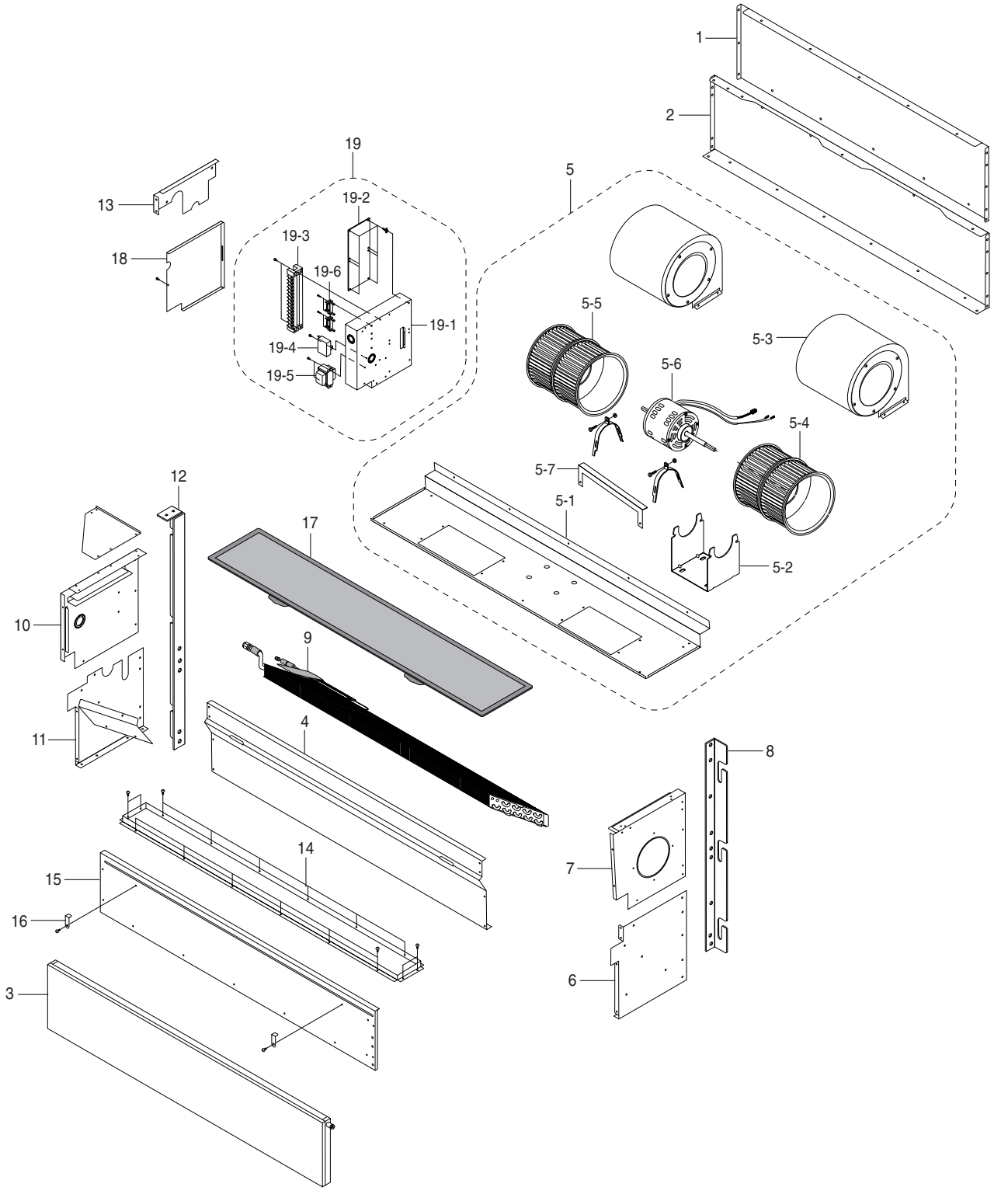
■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	Remark
				PK118M	
1	DB63-00164A	COVER BLADE	HIPS (UL94-V0)	1	
2	DB66-00160A	BLADE-V	HIPS (UL94-V0)	10	
3	DB66-00157A	LINK BLADE	POM	2	
4	DB63-00163A	COVER PCB CASE	HIPS (UL94-V0)	1	
5	DB98-01021A	DISPLAY PCB ASS'Y		1	
6	DB31-10153D	STEP MOTOR	MSFCC20A05	1	
7	DB61-00535A	HOLDER MOTOR	HIPS (UL94-V0)	1	
8	DB64-00234B	PANEL FRONT	HIPS (UL94-V0)	1	
9	DB66-00159A	BLADE-H	HIPS (UL94-V0)	1	
10	DB64-00243B	GRILLE FRONT	HIPS (UL94-V0)	1	
11	DB64-00244A	GRILLE AIR INLET	PP	1	

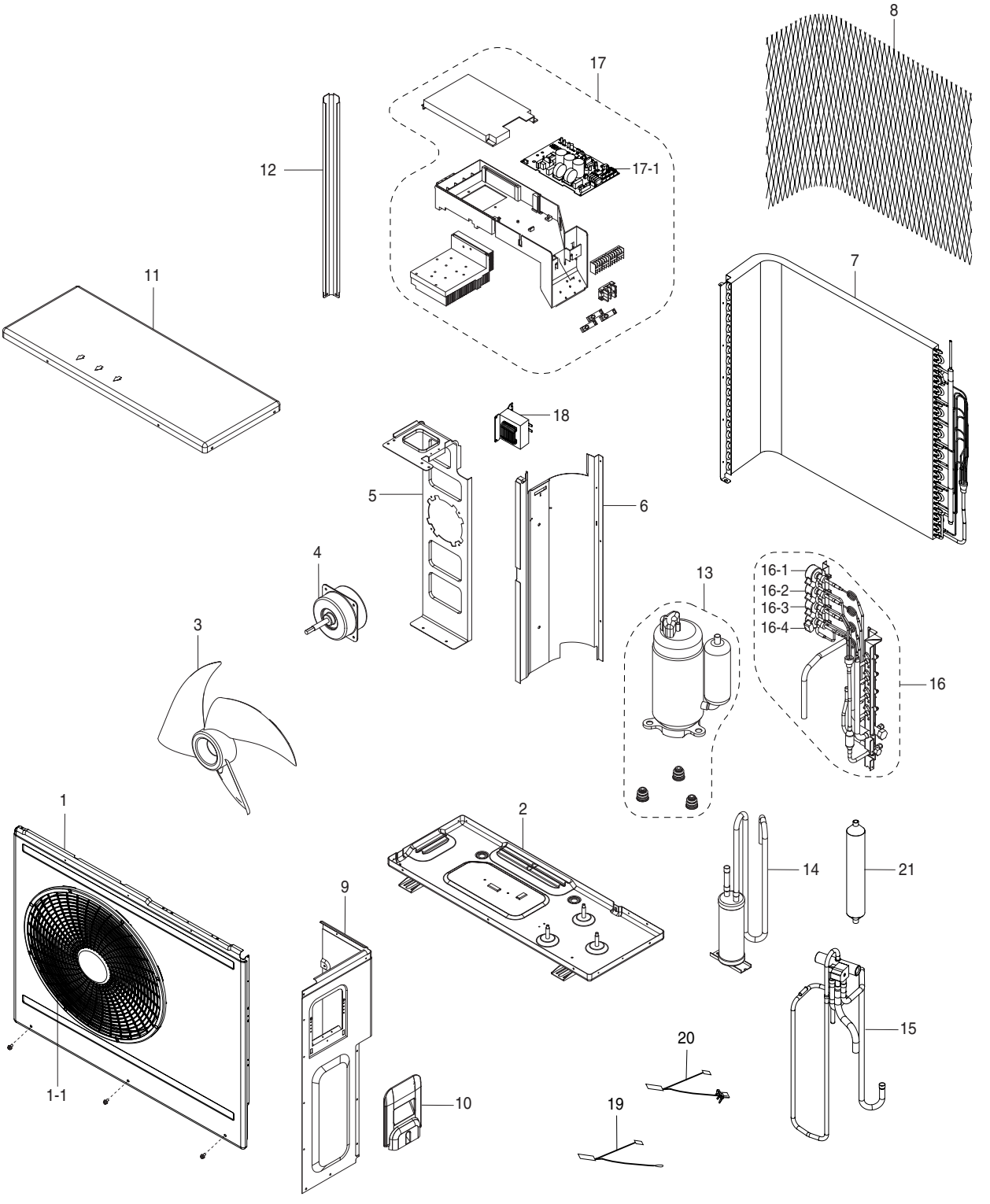
7-1-4 MH052FDEA



■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	Remark
				MH052FDEA	
1	DB63-00076A	COVER-TOP	SGCC-M T0.8	1	
2	DB63-00074A	COVER-CASE DUCT	SGCC-M T0.8	1	
3	DB94-00022A	ASS'Y-DRAIN PAN	ASS'Y, BLK	1	
4	DB61-00099A	CASE-BOTTOM	SGCC-M, T0.8	1	
5	DB94-00023C	ASS'Y-BLOWER DUCT	ASS'Y	1	
5-1	DB64-00071A	PANEL-DUCT HOLDER	SGCC-M, T1.2	1	
5-2	DB61-00155A	BRACKET-MOUNT MOTOR	SGCC-M, T2.0	1	
5-3	DB90-00121A	ASS'Y-CASE FAN	ASS'Y	2	
5-4	DB67-00046A	BLOWER-LF	SGCC-M, ø175	1	
5-5	DB67-00046B	BLOWER-RH	SGCC-M, ø175	1	
5-6	DB31-00025A	MOTOR-FAN IN	OSME-1004 SAC	1	
5-7	DB61-00499A	BRACKET-MOTOR GUIDE	SGCC-M, T1.6	1	
6	DB90-00117A	ASS'Y-CABI LF	ASS'Y	1	
7	DB90-00119C	ASS'Y-CABI INLET LF	ASS'Y	1	
8	DB70-00026B	PLATE-HANGER LF	SGCC-M, T2.0	1	
9	DB96-03225F	ASS'Y-EVAP UNIT	ASS'Y	1	
10	DB90-00120C	ASS'Y-CABI INLET RH	ASS'Y	1	
11	DB90-00118A	ASS'Y-CABI SIDE RH	ASS'Y	1	
12	DB70-00027B	PLATE-HANGER RH	SGCC-M, T2.0	1	
13	DB64-00121A	CABINET-SIDE RH B	SGCC-M, T0.8	1	
14	DB90-00113A	ASS'Y-HOLDER OUTLET	ASS'Y	1	
15	DB90-00114A	ASS'Y-COVER BOTTOM	ASS'Y	1	
16	DB71-00019A	PLATE-HANDLE	SGCC-M, T1.2	2	
17	DB74-00006A	FILTER-PRE	PE, 36x40	1	
18	DB63-00186A	COVER-CONTROL	SGCC-M, T0.8	1	
19	DB93-01037L	ASS'Y-CONTROL IN	ASS'Y	1	
19-1	DB90-00282A	ASS'Y-CASE CONTROL	ASS'Y	1	
19-2	DB93-01764D	ASS'Y-PCB MAIN	DPM24K DUCT IN	1	
19-3	DB65-00004H	TERMINAL-BLOCK 6P	DAF-6P	1	
	DB65-00004C	TERMINAL-BLOCK 6P	DAF-6P	1	
19-4	2301-001369	C-FILM	2.5µF/450VAC	1	
19-5	DB26-10065B	TRANS-POWER	DC17 AC230V 50Hz	1	
19-6	DB61-40291B	HOLDER-WIRE	PP, T2.0, BLK	2	

7-2-1 MH068FXEA4/MH080FXEA4

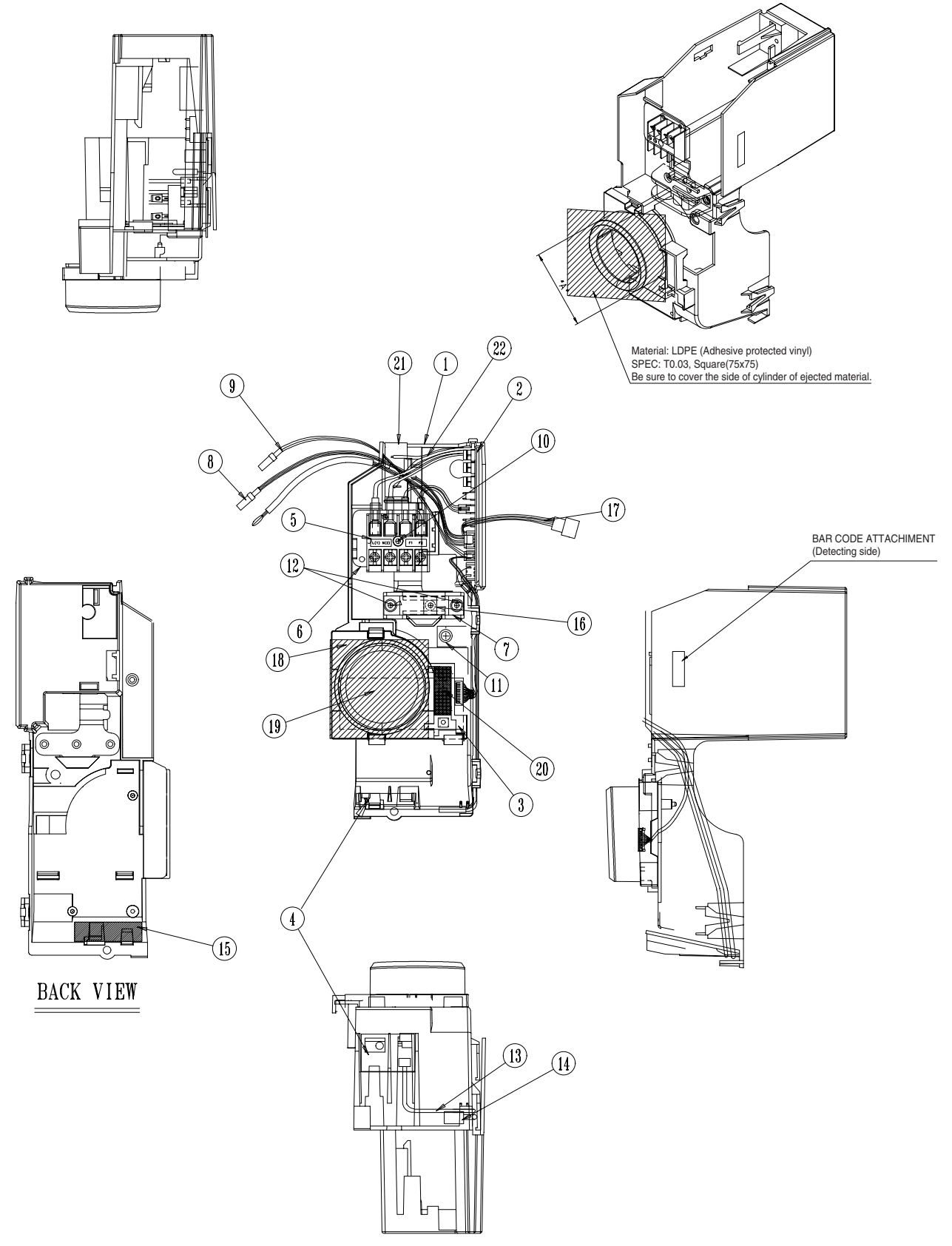


■ **Parts List**

No.	Code No.	Description	Q'TY		Remark
			MH068FXEA4	MH080FXEA4	
1	DB90-01006B	ASS'Y CABINET FRONT	1	1	
1-1	DB63-00831A	GUARD FAN	1	1	
2	DB90-01049C	ASS'Y BASE	1	1	
3	DB67-00438A	FAN PROPELLER	1	1	
4	DB31-00268A	MOTOR FAN	1	1	
5	DB90-01114B	ASS'Y BASE MOTOR	1	1	
6	DB94-00308B	ASS'Y PARTITION	1	1	
7	DB96-03808A	ASS'Y COND	1	1	
8	DB64-00765A	SCREEN GUARD FIN	1	1	
9	DB90-01008B	ASS'Y CABINET SIDE	1	1	
10	DB64-00716A	HANDLE CABI RH	1	1	
11	DB90-01007B	ASS'Y COVER TOP	1	1	
12	DB63-01058A	GUARD COND	1	1	
13	DB95-00586A	ASS'Y COMP	1	1	
14	DB96-03803A	ASS'Y TUBE SUCTION	1	1	
15	DB96-03788A	ASS'Y 4-WAY VALVE	1	1	
16	DB99-00557A	ASS'Y VALVE	1	1	
16-1	DB96-03789A	ASS'Y TUBE EEV	1	1	
16-2	DB96-03790A	ASS'Y TUBE EEV	1	1	
16-3	DB96-03791A	ASS'Y TUBE EEV	1	1	
16-4	DB96-03792A	ASS'Y TUBE EEV	1	1	
17	DB93-02892A	ASS'Y CONTROL OUT	1	1	
17-1	DB93-02893A	ASS'Y PCB MAIN	1	1	
18	DB81-00534A	SOLENOID REACTOR	1	1	
19	DB32-00081B	THERMISTOR COND	1	1	
20	DB32-00083A	THERMISTOR WIRE OUT/DISCHARGE	1	1	
21	DB62-02929A	TUBE RECEIVER	1	1	

7-3 Ass'y Control In (Indoor Unit)

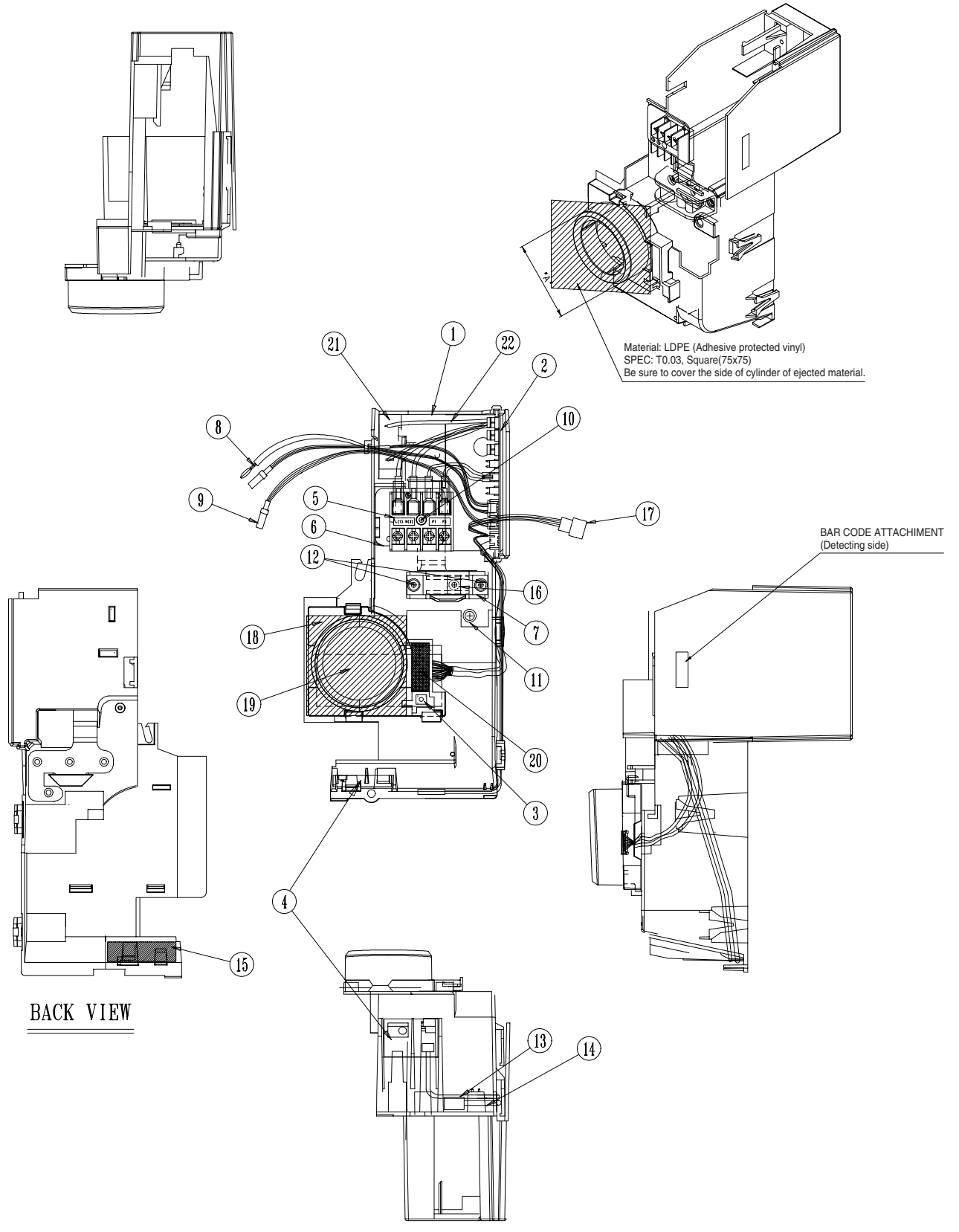
■ MH026FPEA : DB93-02884A



■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	Remark
				MH026FPEA	
1	DB61-01127A	CASE-CONTROL AC	ABS	1	
2	DB93-02779A	ASS'Y MAIN PCB	ASS'Y	1	
3	DB93-01368C	ASS'Y S/W & DISPLAY PCB	ASS'Y	1	
4	DB93-01369A	ASS'Y-MODULE PCB	ASS'Y	1	
5	DB65-00160A	ASS'Y TERMINAL BLOCK	ASS'Y	1	
6	DB70-00289A	PLATE TERMINAL LOW	SGCC-M,T1,2	1	
7	DB61-00171A	HOLDER WIRE CLAMP	HIPS	1	
8	DB32-00020A	ASS'Y THERMISTOR	ASS'Y	1	
9	DB32-00029D	ASS'Y THERMISTOR	ASS'Y	1	
10	6001-000929	SCREW-MACHINE	PH M3xL22	1	
11	-	SCREW-MACHINE	TH M4xL10	-	
12	6001-000725	SCREW-MACHINE	TH M4xL16	2	
13	DB93-01380B	C/W MODULE	ASS'Y	1	
14	DB39-00643M	C/W STEP MOTOR UP/DOWN	ASS'Y	1	
15	DB62-01368X	SEAL	61x40x3,30FOAM-PE,GLAY	1	
16	-	SCREW MACHINE	PHM4X10	1	
17	DB39-00780B	C/W STEPPING MOTOR	ASSY(AUTO GRILLE)	1	
18	DB61-01110A	HOLDER-DISPLAY	ABS	1	
19	DB64-00763A	HALF MIRROR	95,T1.5	1	
20	DB72-00126N	SEAL	T3,FOAM-PE,GLAY	1	
21	2301-001339	MF-CAPACITOR	1.2μF/450V	1	
22	DB39-00183A	C/W MF CAPACITOR	2P	1	

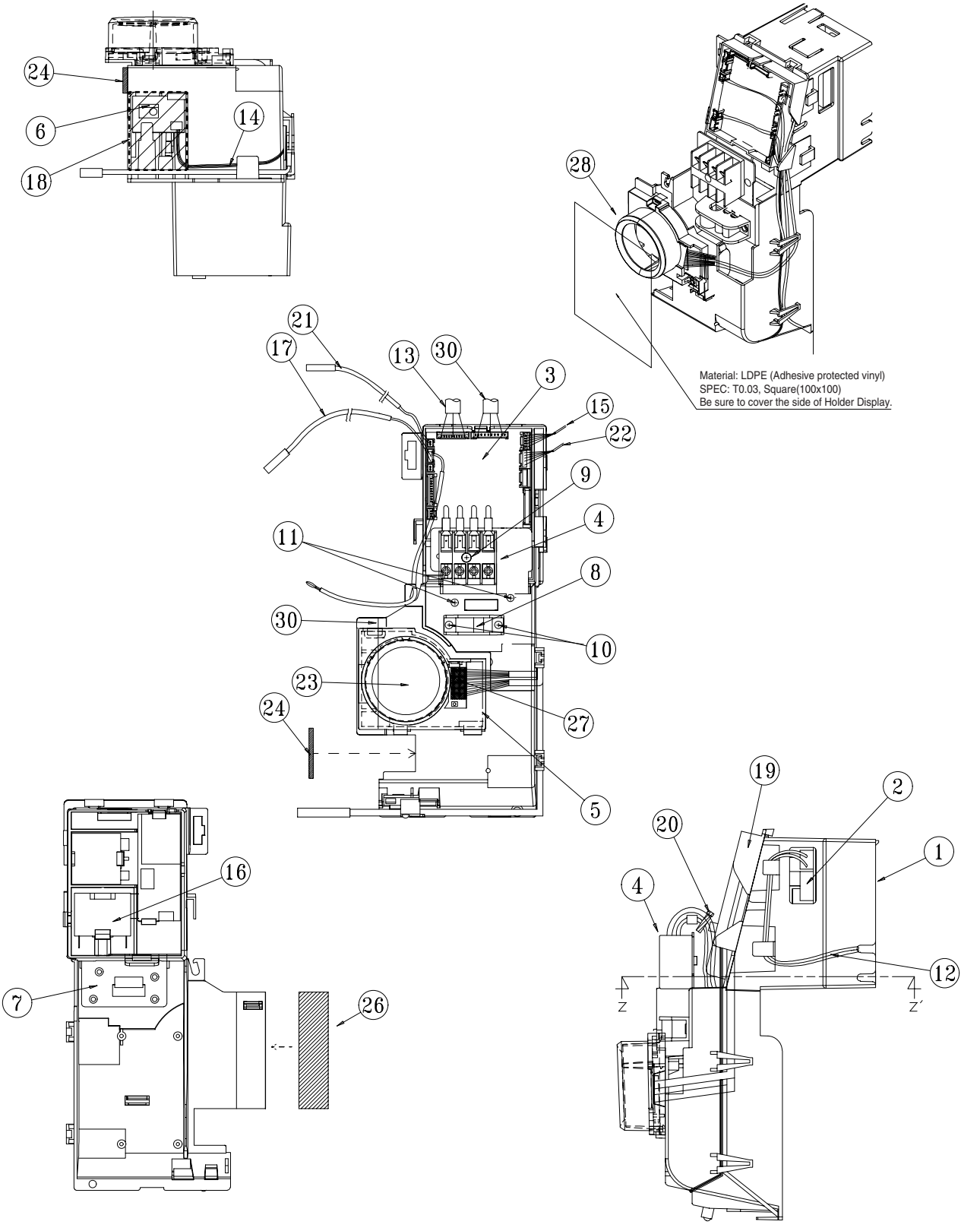
■ MH035FPEA : DB93-02885A



■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	Remark
				MH026FPEA	
1	DB61-01631A	CASE-CONTROL AC	ABS	1	
2	DB93-02779A	ASS'Y MAIN PCB	ASS'Y	1	
3	DB93-01368G	ASS'Y S/W & DISPLAY PCB	ASS'Y	1	
4	DB93-01369A	ASS'Y-MODULE PCB	ASS'Y	1	
5	DB65-00160A	ASS'Y TERMINAL BLOCK	ASS'Y	1	
6	DB70-00289A	PLATE TERMINAL LOW	SGCC-M,T1,2	1	
7	DB61-00171A	HOLDER WIRE CLAMP	HIPS	1	
8	DB32-00020A	ASS'Y THERMISTOR	ASS'Y	1	
9	DB32-00029D	ASS'Y THERMISTOR	ASS'Y	1	
10	6001-000929	SCREW-MACHINE	PH M3xL22	1	
11	-	SCREW-MACHINE	TH M4xL10	-	
12	6001-000725	SCREW-MACHINE	TH M4xL16	2	
13	DB93-01380A	C/W MODULE	ASS'Y	1	
14	DB39-00643F	C/W STEP MOTOR UP/DOWN	ASS'Y	1	
15	DB62-01368X	SEAL	61x40x3,30FOAM-PE,GLAY	1	
16	-	SCREW MACHINE	PH M4X10	1	
17	DB39-00780B	C/W STEPPING MOTOR	ASS'Y(AUTO GRILLE)	1	
18	DB61-01110A	HOLDER-DISPLAY	ABS	1	
19	DB64-00763A	HALF MIRROR	95,T1.5	1	
20	DB72-00126N	SEAL	T3,FOAM-PE,GLAY	1	
21	2301-001339	MF-CAPACITOR	1.2μF/450V	1	
22	DB39-00183A	C/W MF CAPACITOR	2P	1	

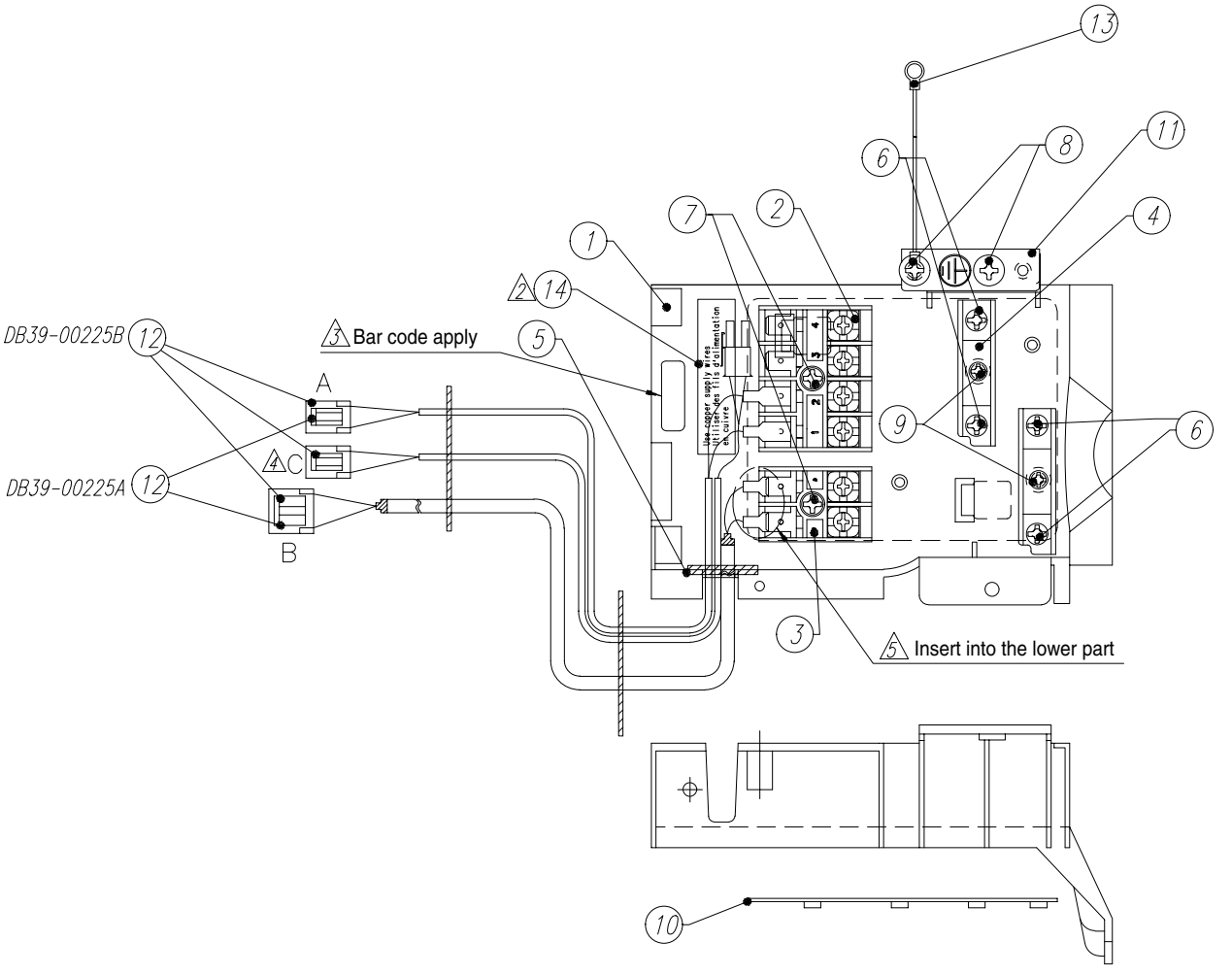
■ MH052FPEA : DB93-02744A



■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	Remark
				MH052FPEA	
1	DB61-01143A	CASE CONTROL AC	ABS	1	
2	DB93-02743A	ASS'Y MAIN PCB(AC)	ASS'Y	1	
3	DB93-02745A	ASS'Y MAIN PCB(DC)	ASS'Y	1	
4	DB65-00160B	ASS'Y TERMINAL BLOCK	ASS'Y	1	
5	DB93-01368C	ASS'Y-S/W & DISPLAY	ASS'Y	1	
6	DB93-01369B	ASS'Y-MODULE PCB	ASS'Y	1	
7	DB70-00277A	PLATE-TERMINAL LOW	SGCC-M T1.2	1	
8	DB61-00171A	HOLDER WIRE CLAMP	ABS	1	
9	6001-000929	SCREW-MACHINE	PH M3xL22	1	
10	6001-000725	SCREW-MACHINE	TH M4xL16	2	
11	6001-001054	SCREW-MACHINE	TH M4xL10	2	
12	DB93-01386A	ASS'Y-C/W MOTOR CAPACITOR	ASS'Y	1	
13	DB93-01384B	ASS'Y-C/W AC/DC CONNECTION	ASS'Y	1	
14	DB93-01380C	ASS'Y-C/W MODULE PCB	ASS'Y	1	
15	DB93-01543A	C/W STEP MOTOR UP/DOWN	ASS'Y	1	
16	2301-001371	CAPACITOR	2.0uF,450VAC	1	
17	DB32-00020H	ASS'Y-THERMISTOR	4P(103AT)	1	
18	DB62-01368X	SEAL	61x40x3,30FOAM-PE	1	
19	DB61-01106A	CASE CONTROL(DC)	HIPS VO	1	
20	6501-000123	CABLE TIE	DA-140	1	
21	DB32-00029G	EVA OUT	ASS'Y	1	
22	DB39-00780B	ASS'Y C/W AUTO GRILLE	95,T1.5	1	
23	DB64-00763A	HALF MIRROR	T1.5/53.5PI	1	
24	DB62-01838Y	SEAL-CASE CONTROL	FLOCKED,BLK,T1x45x22	1	
25	DB62-02015A	SEAL-CONTROL IN	FOAM-PE	1	
26	DB62-01838Y	SEAL-CASE CONTROL	FLOCKED,BLK,T1x77x20	1	
27	DB72-00126N	SEAL	10x30xT3FOAM-PE,GRAY	1	
28	DB61-01139A	HOLDER DISPLAY		1	
29	DB39-00889A	C/WIRE POWER TEST	ASS'Y	1	
30	DB39-01014A	ASS'Y-C/W AC-DC CONNECTION	ASS'Y	1	

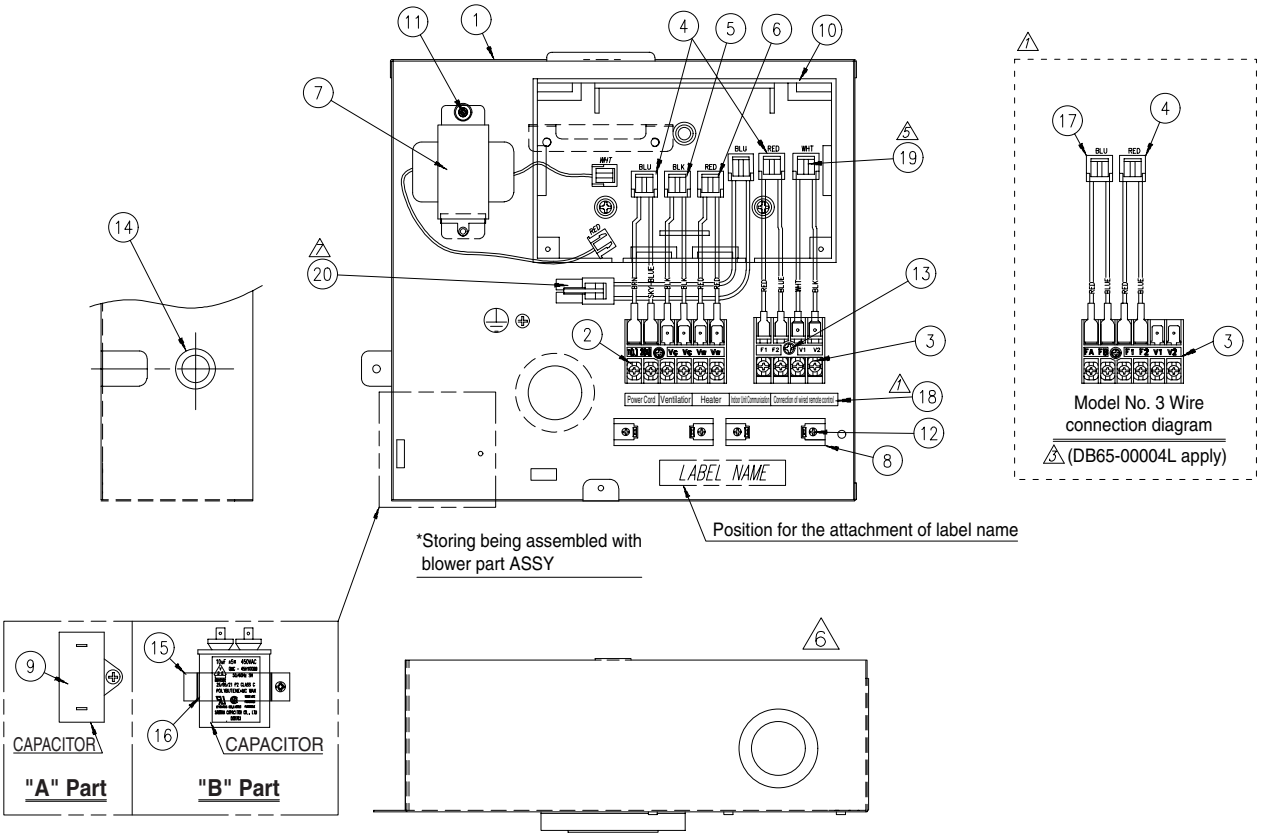
■ MH026FKEA/MH035FKEA : DB90-00590A



■ **Parts List**

No.	Code No.	Description	Specification	Q'TY		Remark
				MH026FKEA	MH035FKEA	
1	DB61-00394A	BASE TERMINAL	BLK	1	1	
2	DB65-00004C	TERMINAL BLOCK	ASS'Y	1	1	
3	DB65-00004B	TERMINAL BLOCK	ASS'Y	1	1	
4	DB61-00250A	HOLDER WIRE	ABS,BLK	2	2	
5	DB65-10088B	CABLE TIE	-	1	1	
6	6002-000234	SCREW TAPPING	ZPC(YEL)	4	4	
7	6001-000841	SCREW MACHINE	ZPC(YEL)	2	2	
8	6009-001001	SCREW SPECIAL	ZPC(YEL)	2	2	
9	6002-000231	SCREW TAPPING	ZPC(YEL)	2	2	
10	DB61-00365A	BRACKET TERMINAL	SGCC-M	1	1	
11	DB61-00163A	BRACKET EARTH	SGCC-M	1	1	
12	DB39-00255B	C/W POWER & COMMUNICATION	-	1	1	
13	DB39-00165A	CONNECTOR WIRE EARTH	-	1	1	
14	DB68-01975A	LABEL CAUTION	ART PAPER	1	1	

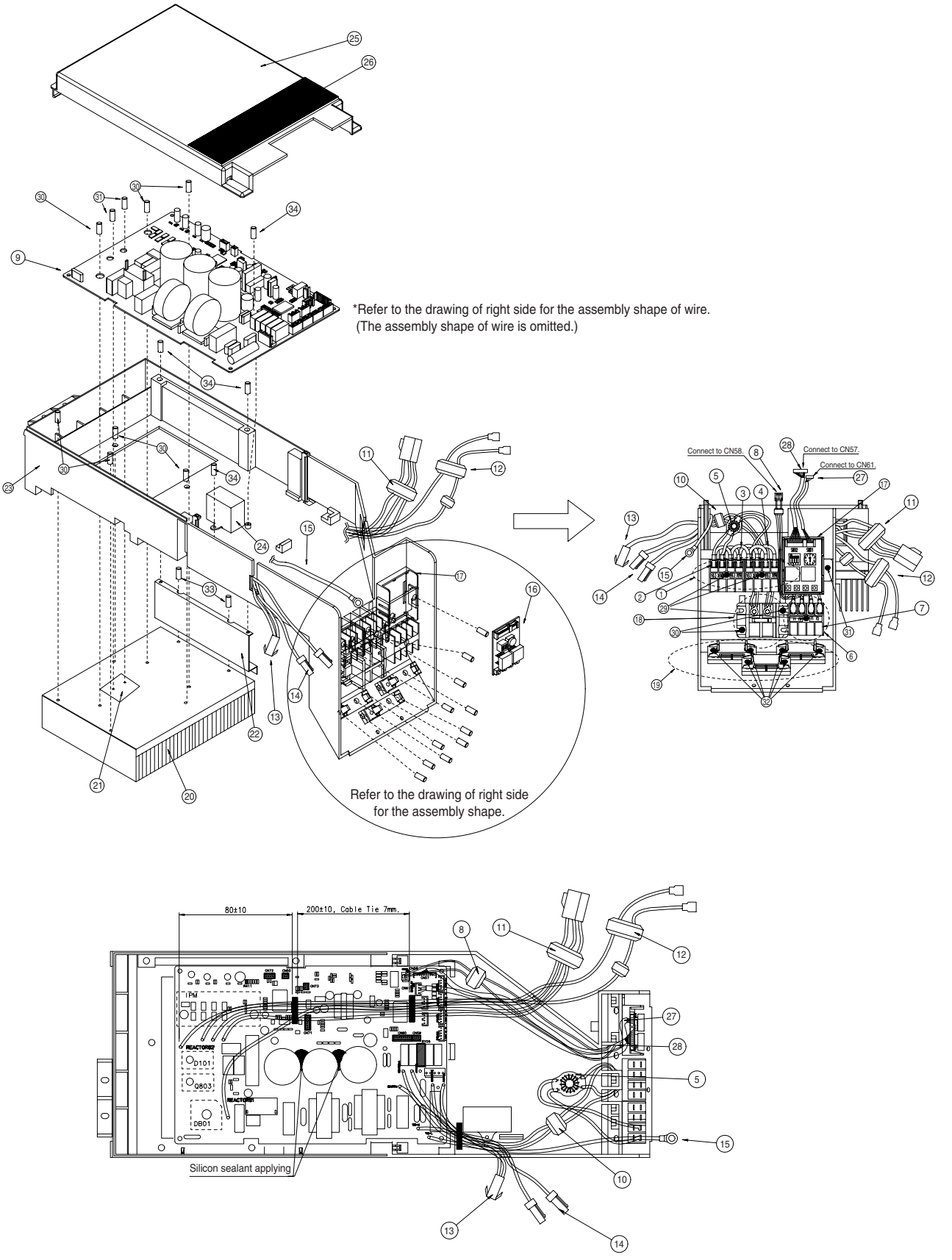
■ MH052FDEA : DB93-01037L



■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	Remark
				MH052FDEA	
1	DB90-00282A	ASS'Y CASE-CONTROL	ASS'Y	1	
2	DB65-00004H	TERMINAL-BLOCK 6P	300V 25A,DAF-6P	1	
3	DB65-00004C	TERMINAL-BLOCK 4P	300V 25A,DAF-4P	1	
4	DB39-00228A	CONNECTOR WIRE POWER&COMM	-	2	
5	DB39-00640A	CONNECTOR WIRE VENTILATOR	-	1	
6	DB39-00640B	CONNECTOR WIRE HOT WATER HEATER	-	1	
7	DB26-10065B	TRANS POWER	DC17V,DC500mA	1	
8	DB61-40291B	HOLDER WIRE	PP	2	
9	2301-001369	C-OIL	3.0uF,450VAC	1	
10	DB61-00449A	CASE PCB	ABS	1	
11	6002-000231	SCREW-TAPPING	TH,+,2S,M4x12,ZPC(YEL)	4	
12	6001-000044	SCREW-MACHINE	TH,+,M4,L18,ZPC(YEL)	4	
13	-	SCREW-TAPPING	PH,M4,L22	2	
14	DB73-30039A	BUSHING	NR/BLK,T7xD37	1	
15	DB69-60008A	BAND-CAPACITOR	SBHG1-M,T0.8	1	
16	DB73-30038A	BUSH-CONDENSOR	NR/BLK	1	
17	DB39-00687A	CONNECTOR WIRE INTER COM	-	1	
18	-	LABEL CONNECTOR WIRE	-	1	
19	DB39-00760A	C/W COMMUNICATION THROUGH	UL1007 AW#18	1	
20	DB39-00943B	CONNECTOR WIRE COMM2	UL1007 AW#22	1	

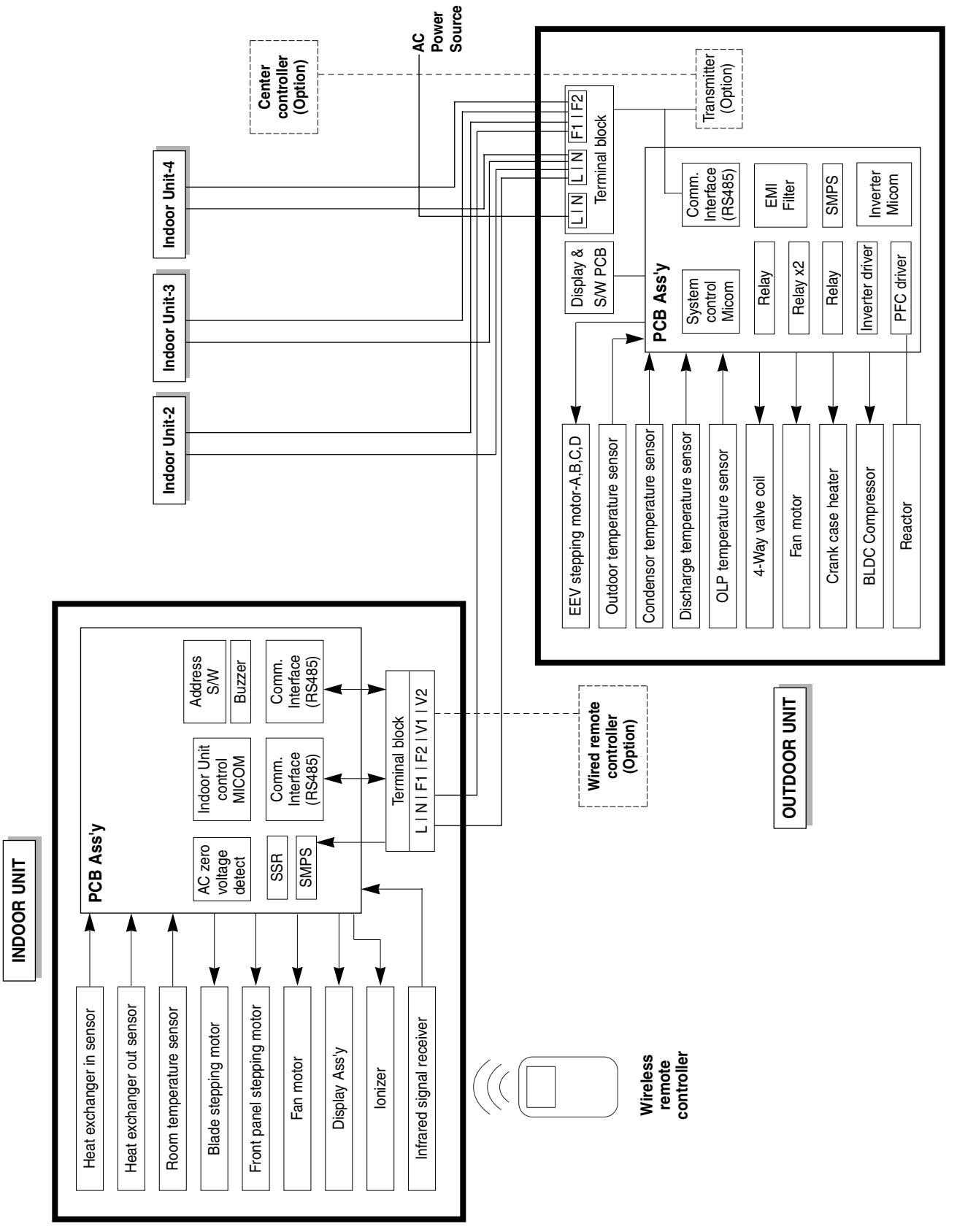
7-4 Ass'y Control Out (Outdoor Unit)


*Refer to the drawing of right side for the assembly shape of wire.
(The assembly shape of wire is omitted.)
Connect to CN58.
Connect to CN57.
Connect to CN61.
Refer to the drawing of right side
for the assembly shape.
80±10
200±10, Cable Tie 7mm.
Silicon sealant applying

■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	Remark
1	DB93-02990A	ASS'Y TERMINAL BLOCK P/W		1	
2	DB65-00161A	TERMINAL BLOCK		2	
3	DB39-00604H	CONNECT WIRE		3	
4	DB39-00604G	CONNECT WIRE		3	
5	DB39-00625C	CONNECT WIRE POWER		1	
6	DB93-02991A	ASS'Y TERMINAL BLOCK 485		1	
7	DB65-00161B	TERMINAL BLOCK		1	
8	DB39-01017A	CONNECT WIRE COMM		1	
9	DB93-02893A	ASS'Y PCB MAIN		1	
10	DB39-00749C	CONNECT WIRE POWER		1	
11	DB39-00746B	CONNECT WIRE COMP		1	
12	DB39-00747B	CONNECT WIRE REACTOR		1	
13	DB39-00649C	CONNECT WIRE 4-WAY		1	
14	DB39-00765Q	CONNECT WIRE HEATER		2	
15	DB39-00765P	CONNECT WIRE		1	
16	DB93-02894A	ASS'Y PCB OUT DISPLAY		1	
17	DB61-01948A	CASE SUB-PCB		1	
18	DB65-40062F	TERMINAL BLOCK		1	
19	DB61-40291B	HOLDER-WIRE		3	
20	DB62-02900A	HEAT SINK		1	
21	DB81-00547A	INSULATOR MICA	T0.1, 45x28	1	
22	DB62-03079A	SIDE COVER		1	
23	DB61-01197A	CASE CONTROL BASE		1	
24	2301-001369	FAN MOTOR CAPACITOR	3.0uF/450V	1	
25	DB61-01198A	CASE CONTROL UPP		1	
26	DB62-01925B	INSUL-CONTROL BOX TOP		2	
27	DB39-01019A	CONNECT WIRE	4P	1	
28	DB39-01018A	CONNECT WIRE	10P	1	
29	-	SCREW-MACHINE	M3x25 ZPC(YEL) PH+ WSP	3	
30	-	SCREW-MACHINE	M4x16 ZPC(YEL) PH+ WSP	9	
31	6006-000160	SCREW-MACHINE	M3x16 ZPC(YEL) PH+ WSP	3	
32	-	SCREW-MACHINE	M4x25 ZPC(YEL) PH+ WSP	6	
33	6006-000245	SCREW-MACHINE	M4x8 ZPC(YEL) PH+ WSP	2	
34	6002-000171	SCREW-TAPPING	M4x10 2S PH+	4	

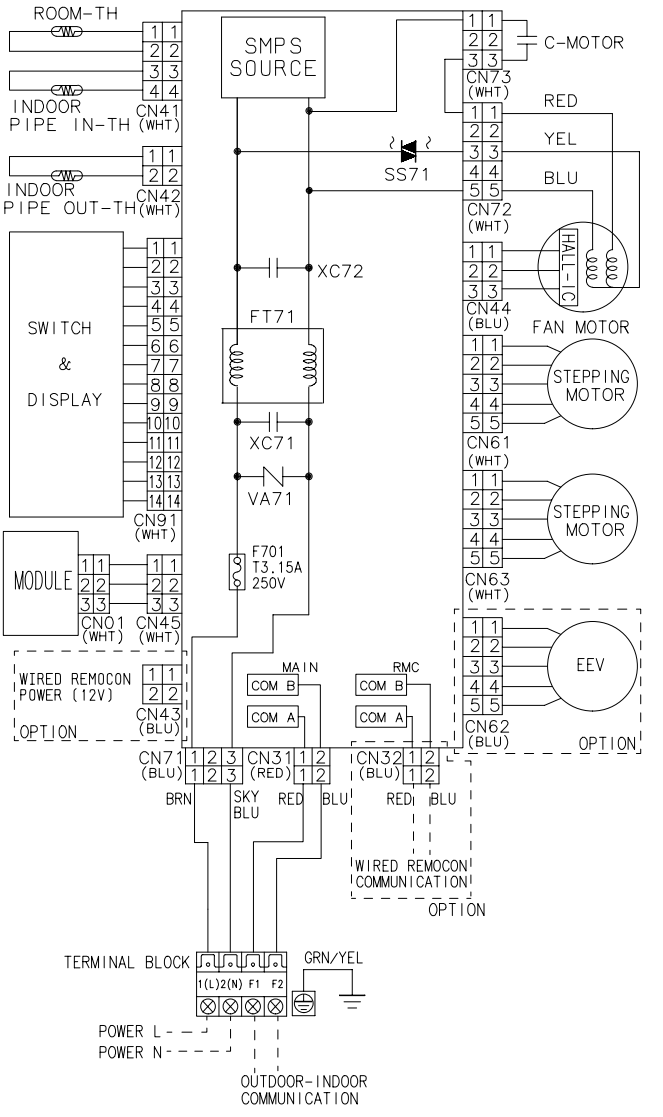
8. Block Diagram



9. Wiring Diagram

9-1 Indoor Unit

■ MH026FPEA/MH035FPEA



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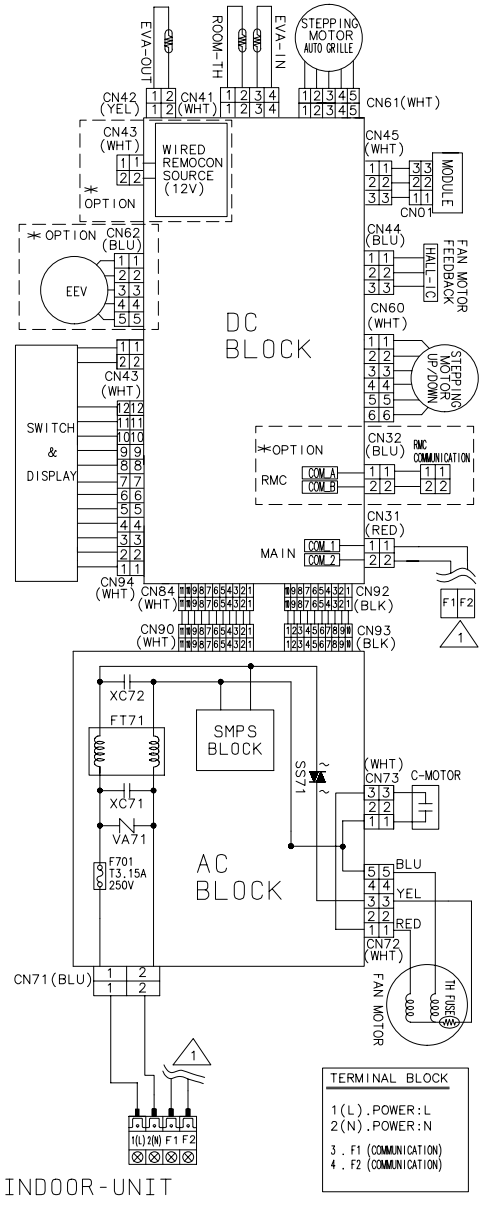
■ MH052FPEA



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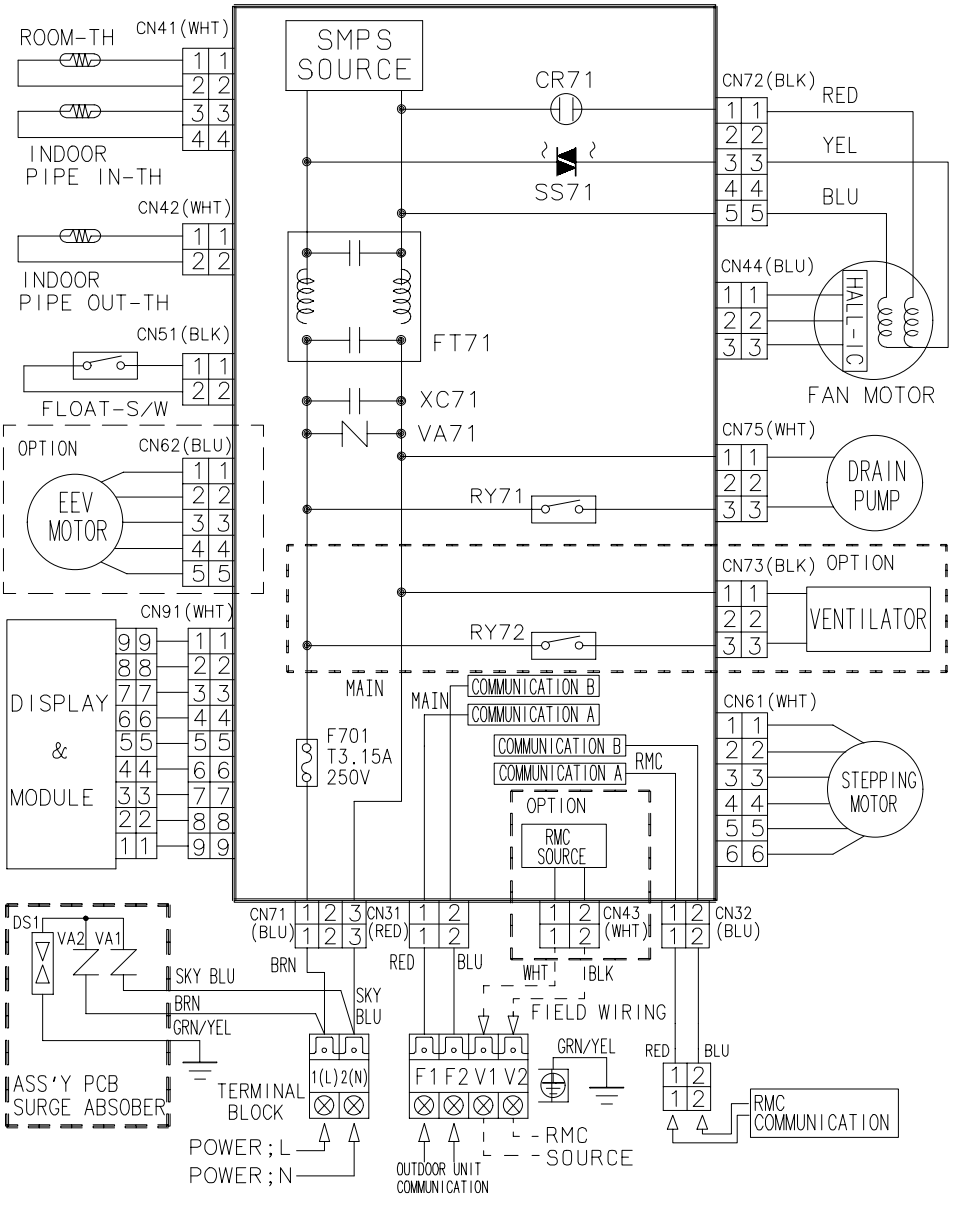
■ MH026FKEA/MH035FKEA



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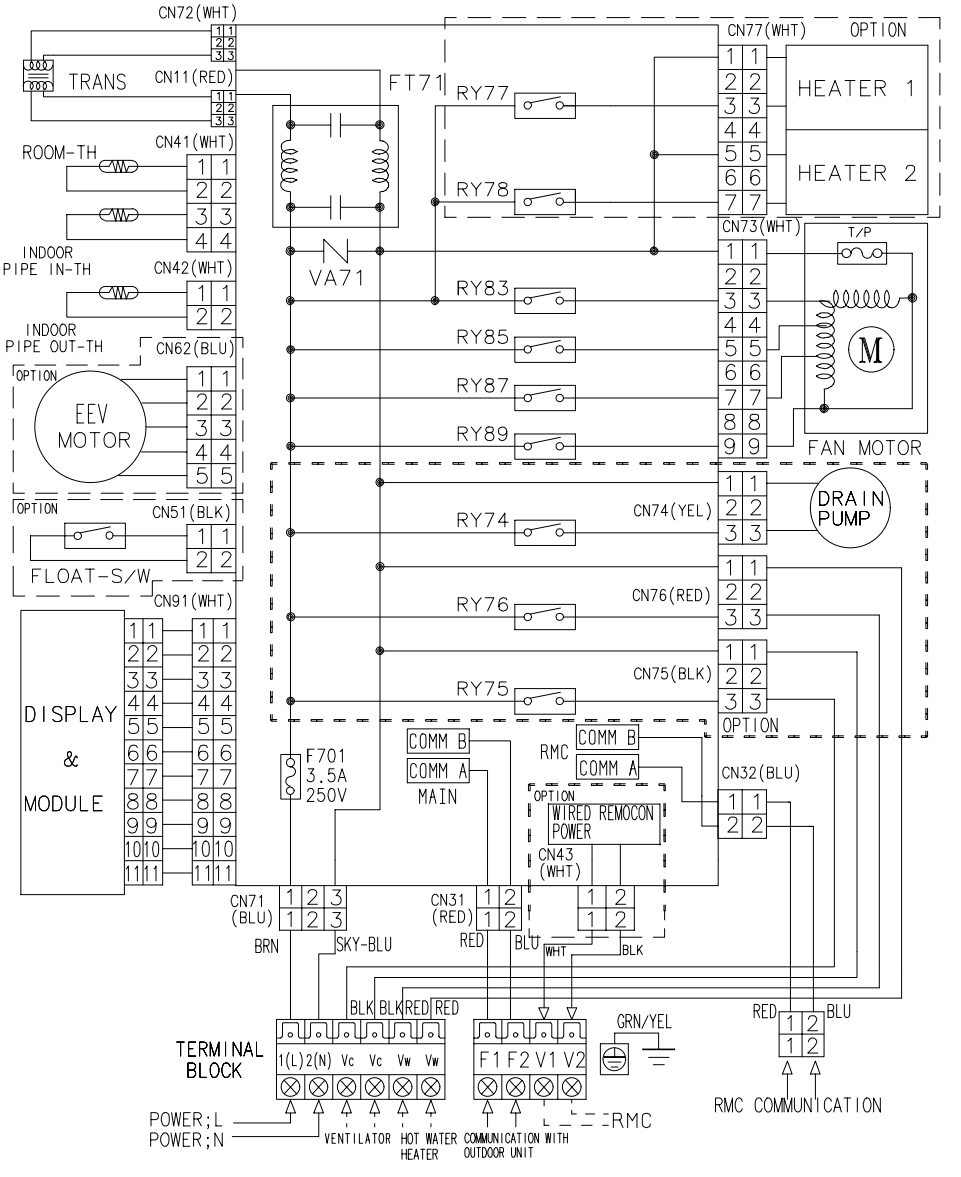

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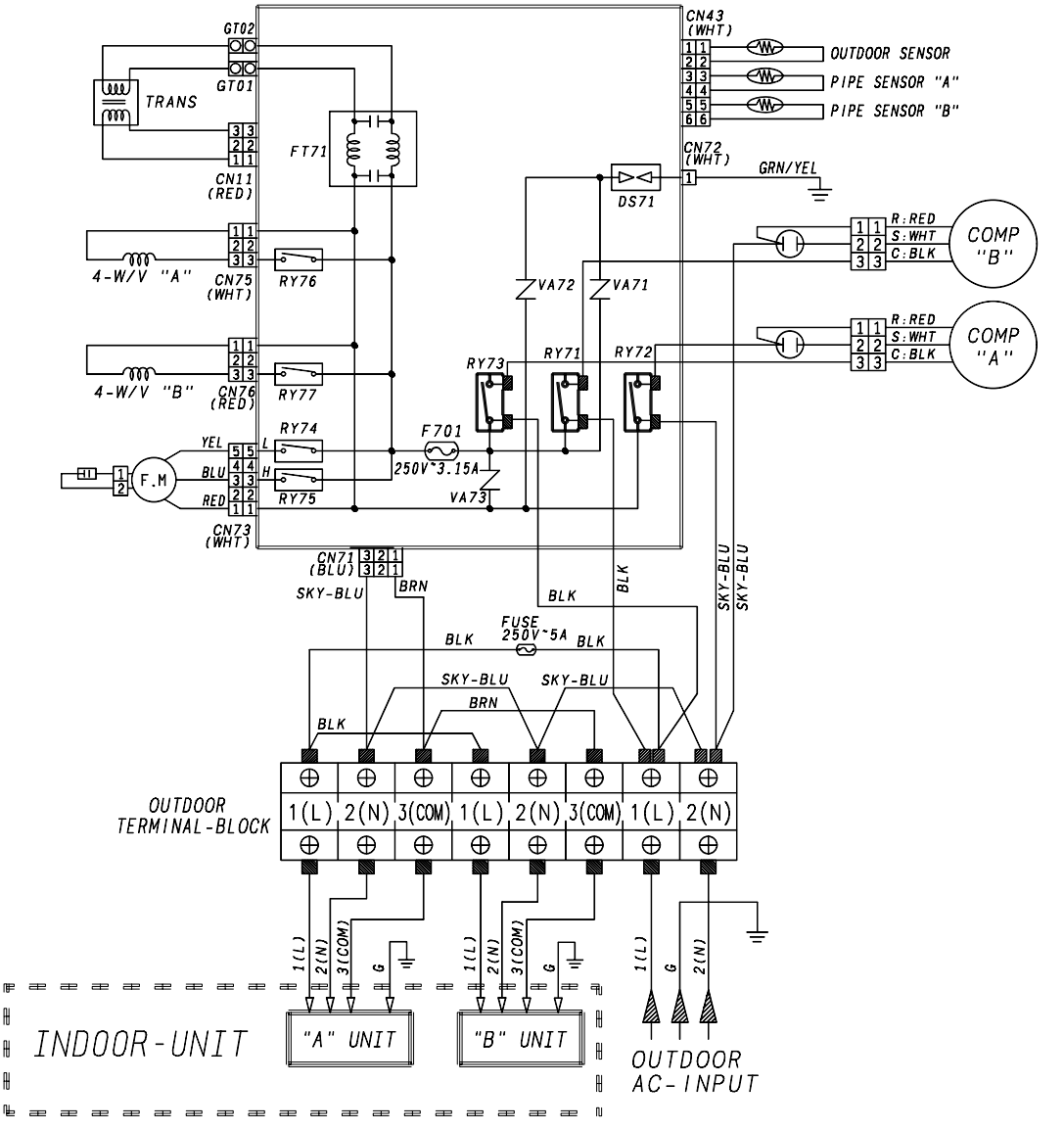
■ MH068FXEA4/MH080FXEA4



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